Cl **00** *SC* *P* *L* # 292

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

The attribute aMACMergeStatusTx contains the direction "Tx". Should the attribute aMACMergeVerifyDisable not also have the extension "Tx". Because preemption is only enabled at Tx side and also in the description it is mentioned that it is only relevant for the transmit direction (...given device in the transmit direction)

SuggestedRemedy

Change the name of the attribute to aMACMergeVerifyDisableTx

Response *Response Status* **C**

ACCEPT.

Cl **00** *SC* *P* *L* # 380

Peter Stassar — Huawei Technologies

Comment Type **ER** *Comment Status* **A** *Preepmt vs IET*

The draft is totally inconsistent between its title, referring to Interspersing Traffic and the actual text, where only 'Preempt ...' is being used.

SuggestedRemedy

Fix inconsistency.

Response *Response Status* **U**

ACCEPT IN PRINCIPLE. Preemption is the mechanism that allows for interspersing express traffic. Add to 99.1 to explain the relationship.

The MAC Merge sublayer supports interspersing express traffic with preemptable traffic. This is achieved by using a MAC Merge sublayer to attach an express Media Access Control (MAC) and a preemptable MAC to a single Physical
Signaling Sublayer (PLS) service. The MAC Merge sublayer supports this with two methods to stop transmission of preemptable traffic so that express traffic can be transmitted. It can preempt or not initiate transmission of preemptable traffic so that express traffic can be transmitted.

Cl **00** *SC* **0** *P* *L* # 57

Grow, Robert — RMG Consulting

Comment Type **TR** *Comment Status* **A** *PAUSE*

Other than Figure 99-1, and a few other mentions of MAC control as part of express traffic delay requirements, the amendment doesn't address interaction with MAC Control pause. It seems that impacts on pause quanta and interruptability of MAC control frames should be addressed. Were these other optional protocols considered in development of this amendment?

SuggestedRemedy

Please address.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. Interoperation with MAC Control PAUSE and PFC was considered.

Add to 99.1: "A MAC Control Sublayer shall not generate PAUSE when used in conjunction with MAC Merge."
PAUSE would only affect the MAC Control sublayer on which it was received unless work was done to redefine how it worked with two MAC Control sublayers above two MAC Merge sublayers. It would make more sense to use PFC.

With PFC, IEEE 802.1Qbu should discuss the interoperation of PFC and preemption. This has been discussed with the TSN task group during our joint meetings. They are handling it in their draft which currently says to send PFC requests to the eMAC Client interface

Cl **00** *SC* **0** *P* *L* # 58

Grow, Robert — RMG Consulting

Comment Type **TR** *Comment Status* **R**

I am unable to convince myself that the amendment doesn't make what is to me are unacceptable and unstated assumptions of compatible MAC and PHY characteristics. For example, if it assumes all PCS layers use codes that either encode less than an octet (e.g., Manchester bit encoding) or that have an integer number of octets in the PCS code. This is a new requirement. I did not find a requirement that mPackets had to be contiguous and could not cause interframe to be signaled on an xMII unless until both a pFrame and one or more eFrames are completely transmitted when a preemption occurs. Failure to do this could result in RX_DV being deasserted falsely indicating an end of frame on the xMII.

I believe this is a problem for PCS layers that do not encode an integer number of octets. For example, if a 10 Mb/s or 100BASE-X MAC produces a non-integer number of octets, the MII nd currently defined PHYs convey that across the link so that an alignment error can be detected.

I similarly worry that a PHY code that does not include an integer number of octets in a code word could result in a false indication of interframe spacing at the receive xMII.

SuggestedRemedy

Assure MAC Merge will properly convey an alignment error across a link and that contiguous mPackets are required so that interframe will not be improperly created at a receive xMII.

Response *Response Status* **W**

REJECT.
Receive processing receives the packet a bit at a time and does not assume that it is an integer number of octets in length.

There is no assumption that mPackets are contiguous. They must be separated by at least an interpacket gap.

Cl **00** *SC* **0** *P* *L* # 331

Trowbridge, Steve — Alcatel-Lucent

Comment Type **TR** *Comment Status* **A** *Preepmt vs IET*

The terminology in the amendment does not match the agreed objectives for the project. The Call for Interest held in the March 2012 plenary for Frame Preemption was withdrawn after too much controversy over the characterization of the problem and solution. After a subsequent CFI, the first attempt to approve a PAR and objectives at the July 2013 plenary in Geneva failed due to inconsistency of the terminology with 802.3 (distinguished minimum latency traffic and "M-frames", "M-frames in the wild" were rejected. After rework in the York interim, a characterization as "interspersing express traffic" was developed, leading to the currently accepted objectives accepted in November 2013. The only place the accepted terminology appears in the draft is in the title and the name of the task force. The entire draft uses the terminology of the withdrawn CFI from March 2012.

SuggestedRemedy

Update the terminology globally in the draft per the agreed objectives. In particular:
1.4.3 - change "preemptable Media Access Control" to "non-express Media Access Control" with an appropriate acronym
1.4.4 - change "preemptable traffic" to "non-express traffic"
Add IET to the acronyms defined in clause 1.
Occurrences of "preemptable" in clause 30 change to "non-express", objects such as "PreemptSupported", "PreemptEnabled", "PreemptActive" change to "IETSupported", "IETEnabled", "IETActive", etc.
Change "preemption capability" to "IET capability" globally in clause 79.
pMAC and PMAC not consistent in clause 79, but should change globally to neMAC (or whatever acronym is chosen for the non-express MAC).
Clause 99: preemptable MAC should be non-express MAC globally.
"MAC client supporting preemption" becomes "MAC client supporting IET" globally.
pMAC becomes neMAC (or chosen acronym) globally
"preemption is active" becomes "IET is active" globally
"enable preemption" becomes "enable IET" globally
"link partner supports preemption" becomes "link partner supports IET"

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. The terminology was agreed to in the base line proposal by the task force.

Preemption is the capability that provides for interspersing express traffic.

See also #380 for some changes to better relate the two terms.

Cl **00** *SC* **0** *P* **1** *L* **2** # 109

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **R**

This draft is an amendment of IEEE Std802.3-2012 which is under revision by IEEE P802.3bx, and will not be the latest version when IEEE P802.3br is published.

SuggestedRemedy

Make the entire draft as an amendment of IEEE Std802.3-201x based on the latest draft of P802.3bx.

Response *Response Status* **C**

REJECT. An amendment PAR can only be with respect to an approved standard so this is an amendment to IEEE Std 802.3-2012 until the new Revision is approved. Once the new Revision is approved, the draft will be amended to site that version of 802.3 as the base standard.

Cl **00** *SC* **0** *P* **1** *L* **2** # 334

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

Given the date of this amendment being only on its first working group ballot and the 802.3bx revision which is to be 802.3-2015 being already in sponsor ballot, it seems that this should be an amendment to 802.3-2015, not 802.3-2012.

SuggestedRemedy

Change header and front matter to reflect that this is an amendment to 802.3-2015. Editor to review draft for consistency with changes made in the 802.3bx revision project and to maintain consistency through sponsor ballot.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Until the revision of IEEE 802.3 is approved, the PAR is an amendment to 802.3-2012 so that is what the amendment says. Once the 802.3 revision is approved, the PAR will automajically be updated to be against the new base standard and the editor will change the draft to indicate that.

The editor has reviewed the draft for consistancy with 802.3bx to maintain consistency.

Cl **00** *SC* **0** *P* **1** *L* **24** # 1

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

This will be an amendment to IEEE Std 802.3-201x (the outcome of the 802.3bx revision) rather than IEEE Std 802.3-2012.
The headers in the draft incorrectly say "Draft Amendment to IEEE Std 802.3-2012"
Also, all the headers are missing the "P" from "P802.3br" and the headers in the TOC are incorrect.

SuggestedRemedy

Change all of the headers to say "Draft Amendment to IEEE Std 802.3-201x" and also from:
"IEEE 802.3br Interspersing Express Traffic Task Force" to:
"IEEE P802.3br Interspersing Express Traffic Task Force".
This can be done by changing the base_year variable in each file and by changing the odd and even page headers in one of the files file to say "P802.3br", then with that file open, in the left hand pane highlight all of the other files in the book (including the TOC) and use File, Import, Formats, Deselect All, Page layouts, Import.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The editor will add the missing P to P802.3br.
See comment #334 for the reason IEEE 802.3-2012 is the base standard in the headers.

Cl **00** *SC* **0** *P* **10** *L* **54** # 2

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

Incorrect copyright year shown in the TOC and Clause 30

SuggestedRemedy

change the copyright_year variable in the TOC and Clause 30 files to "2015"

Response *Response Status* **C**

ACCEPT.

Cl **00** *SC* **0** *P* **13** *L* **44** # 104

Healey, Adam — Avago Technologies

Comment Type **E** *Comment Status* **A**

This is a comment on the frontmatter (the comment tool needs to be updated now that 99 is an actual clause number).

Even though the editor's note is removed prior to final publication, IEEE P802.3bj and IEEE P802.3bk are no longer amendment projects running in parallel with P802.3br.

SuggestedRemedy

Delete the parenthetical "(e.g., IEEE P802.3bj and IEEE P802.3bk)".

Response *Response Status* **C**

ACCEPT.

Cl **00** *SC* **0** *P* **4** *L* **28** # 103

Healey, Adam — Avago Technologies

Comment Type **E** *Comment Status* **A**

This is a comment on the frontmatter (the comment tool needs to be updated now that 99 is an actual clause number).

IEEE Std 802.3-2012 has two other approved amendments: IEEE Std 802.3bj-2014 and IEEE Std 802.3bm-2015.

In addition IEEE Std 802.3br-201x should also be described.

SuggestedRemedy

Add the descriptions of all approved amendments to the introdcution (refer to the introduction of IEEE Std 802.3bm-2015).

Include a description of this amendment to the introduction.

Response *Response Status* **C**

ACCEPT.

Cl **00** *SC* **0** *P* **6** *L* **13** # 34

Booth, Brad — Microsoft

Comment Type **E** *Comment Status* **A**

Template information still being used.

SuggestedRemedy

Delete "Task Force name" from Ludwig and Pat's titles.

Response *Response Status* **C**

ACCEPT.

Cl **01** *SC* **1.3** *P* **14** *L* **52** # 38

Booth, Brad — Microsoft

Comment Type **TR** *Comment Status* **A**

Reference to 802.1Qbu and 802.1Qbv should be in the Normative References with reference to the current draft.

SuggestedRemedy

Remove footnote and add a normative reference to the existing drafts for .1Qbu and .1Qbv. Keep the references up-to-date as the project progresses.

Review all other footnote references in Clause 99 to 802.1Q to correctly reference to .1Qbu and .1Qbv.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. The reference isn't needed as we don't have any normative statements about the 802.1Q amendments. Delete the reference.

In 99.4.8, delete: "Scheduled traffic or"

Cl **01** *SC* **1.3** *P* **14** *L* **8** # 35

Booth, Brad — Microsoft

Comment Type **E** *Comment Status* **A**

Reference already exists in 802.3-2012, but name of the standard does need to be updated.

SuggestedRemedy

Change edit command from "insert" to "change".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #38. Also, since the reference hasn't been updated to the new title in IEEE 802.3bx, the editor has sent a note to the task force chair and editor for that to update the 802.1Q title.

Cl **01** *SC* **1.3** *P* **14** *L* **8** # 51

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **A**

802.1Q is already in P802.3.

SuggestedRemedy

Delete insert instruction and reference.

Response *Response Status* **C**

ACCEPT. See #38

Cl **01** *SC* **1.4** *P* **14** *L* **15** # 196

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

Definitions in 1.4 that are used in specific clauses should include clause references.

SuggestedRemedy

Add references to IEEE 802.3 clause 99 in 1.4.1, 1.4.2, 1.4.3, and 1.4.4.

Response *Response Status* **C**

ACCEPT.

Cl **01** *SC* **1.4** *P* **14** *L* **15** # 6

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**

Provide the information as to where in 1.4 the various new definitions should be inserted. Change the editing instruction accordingly.S

SuggestedRemedy

Change:
"1.4.1 express Media Access Control (eMAC):..." to:
"1.4.197a express Media Access Control (eMAC):..."
"1.4.197b express traffic: ..." to "1.4.2 express traffic: ..."
etc.
Replace the single editing instruction: "Insert the following new definitions into the list, in alphanumerical order:" with:
"Insert the following two new definitions into the list after "1.4.197 Exception Window"
etc.

Response *Response Status* **C**

ACCEPT.

Cl **01** *SC* **1.4** *P* **14** *L* **27** # 222

Ran, Adee Intel

Comment Type **ER** *Comment Status* **R**

References should be made to the base document rather than to the amendment.

SuggestedRemedy

Change "802.3br" to "802.3".

Response *Response Status* **W**

REJECT. This is the way the references need to be because the definitions will be placed in the IEEE dictionary and a reader of the dictionary needs to know where to find the related material. The reference is revised to point to the base standard when the material is rolled into a revision.

Cl **01** *SC* **1.4.1** *P* **16** *L* **17** # 381

Thompson, Geoff GraCaSI S.A.

Comment Type **TR** *Comment Status* **A**

The current text of the definition appears to require the definition of a "new MAC". My impression of this project was that it was supposed to accomplish its goals within the reconciliation sub-layer and use two instances of a normal full-duplex MAC.

SuggestedRemedy

Change text to read: "1.4.1 express Media Access Control (eMAC): The instance of the Media Access Control sublayer associated with an Interspersing Express Traffic port which is the client of a MAC Merge sublayer service interface that handles express frames."

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. IEEE 802.3 does not use the term port except in a very limited sense (i.e. where a fiber optic cable attaches) so this definition wouldn't work.

"The instance of a Media Access Control sublayer (IEEE Std 802.3 Annex 4A) which is the client of a MAC Merge sublayer and handles express traffic."

Do the same for pMAC and preemptable traffic.

Cl **01** *SC* **1.4.5** *P* **14** *L* **27** # 69

Hajduczenia, Marek Bright House Network

Comment Type **ER** *Comment Status* **R**

"See IEEE Std 802.3br, Clause 99." - we reference clauses, and not specific amendments.

SuggestedRemedy

Change to "See IEEE Std 802.3, Clause 99."

Response *Response Status* **W**

REJECT.

See #222

Cl **01** *SC* **1.4.5** *P* **14** *L* **27** # 337

Zimmerman, George CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

hanging close paren without an open paren " See IEEE Std 802.3br, Clause 99.)"

SuggestedRemedy

insert "(" to read "(See IEEE Std 802.3br, Clause 99.)"

Response *Response Status* **C**

ACCEPT.

Cl **1** *SC* **1.4.3** *P* **16** *L* **22** # 382

Thompson, Geoff — GraCaSI S.A.

Comment Type **TR** *Comment Status* **A**

The current text of the definition appears to require the definition of a "new MAC". My impression of this project was that it was supposed to accomplish its goals within the reconciliation sub-layer and use two instances of a normal full-duplex MAC.

SuggestedRemedy

Change text to read: "1.4.3 express Media Access Control (eMAC): The instance of the Media Access Control sublayer associated with an Interspersing Express Traffic port which is the client of a MAC Merge sublayer service interface that handles preemptable frames."

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. See #381

Cl **1** *SC* **1.4.5** *P* **16** *L* **28** # 383

Thompson, Geoff — GraCaSI S.A.

Comment Type **E** *Comment Status* **A**

The current text seems imprecise. I suggest a little tweaking.

SuggestedRemedy

Change text to read: "1.4.5 MAC Merge sublayer: An optional sublayer that supports interspersing express traffic with preemptable traffic by attaching an eMAC and a pMAC to a single Physical Signaling Sublayer (PLS) service. See IEEE Std 802.3br, Clause 99.)

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. But include the expanded acronyms for eMAC and pMAC

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* # 102

Healey, Adam — Avago Technologies

Comment Type **E** *Comment Status* **A**

The changes to the definition aLldpXdot3PortConfigTLVsTxEnable relative to IEEE Std 802.3-2015 (and its approved amendements) are not correctly marked.

SuggestedRemedy

The second paragraph has been reformatted as a list. Show the original paragraph with strike-through text.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* **2741** # 223

Ran, Adee — Intel

Comment Type **ER** *Comment Status* **A**

The changes in this subclause, relative to the base document, are more substantial than what the text marking indicates.

SuggestedRemedy

Include the original text with strikethrough font, and underline all text after the first paragraph.

Response *Response Status* **W**

ACCEPT.

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* **28** # 70

Hajduczenia, Marek — Bright House Network

Comment Type **ER** *Comment Status* **A**

Align format of Clause 30 attributes to what is used in P802.3bx - they are different in terms of alignment and the use of tab, as well as spacong between lines.
Also note that description in "BEHAVIOUR DEFINED AS:" ends with ".;" and not just ";" like it is done in the draft right now.

SuggestedRemedy

Changes per comment.

Response *Response Status* **W**

ACCEPT. Copy style from 802.3bx

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* **28** # 9

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

Headings for 30.12, 30.12.1, 30.12.1.1 are missing

SuggestedRemedy

Add the headings for 30.12, 30.12.1, 30.12.1.1

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* **30** # 22

Anslow, Pete — Ciena

Comment Type **ER** *Comment Status* **A**

The editing instruction should be more explicit.
The format and text of 30.12.1.1.1 in the base standard (P802.3bx D3.0) is not the same as the unmodified text shown here.

SuggestedRemedy

Change editing instruction to:
"Change 30.12.1.1.1 as follows:"
Start with the text of this subclause from the base standard (P802.3bx D3.0).
In the first paragraph show "6 bits" being changed to "7 bits".
Show the second paragraph in strikethrough font followed by the new version in underline font.

Response *Response Status* **W**

ACCEPT.

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* **36** # 373

Scruton, Peter — University of New Ham

Comment Type **E** *Comment Status* **A**

This may be my lack of expertise in what this means, but 6 bits for 7 items where each item consumes a bit seems insufficient.

SuggestedRemedy

Response *Response Status* **C**

ACCEPT. Your expertise seems just fine. See #22

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* **36** # 192

Marris, Arthur — Cadence Design Syst

Comment Type **TR** *Comment Status* **A**

It is 7 bits not 6.

SuggestedRemedy

Change to:
"A read-write string of 7 bits indicating"

Also clean up editing instructions to make it clearer what has changed from the base standard. For example the formatting has changed and "seventh" should be under-lined.

Response *Response Status* **W**

ACCEPT.
See #22

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* **36** # 290

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

The 6 bits in the sentence "read-write string of 6 bits indicating, for each.." match not with the 7 bits that are describted in the list of the TLV bits.

SuggestedRemedy

Change to 7 bits

Response *Response Status* **C**

ACCEPT. See #22

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* **36** # 89

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **A**

"A read-write string of 6 bits indicating, ..." but later on the list shows allocation of seev bits ...

SuggestedRemedy

Change "6" to "7", since we allocate 7 bits in the list below.

Response *Response Status* **W**

ACCEPT. See #22

Cl **30** *SC* **30.12.1.1.1** *P* **18** *L* **36** # 349

Zimmerman, George — CME Consulting, Inc.

Comment Type **TR** *Comment Status* **A**

Unclear how many bits are in the string - text as written says 46. 802.3bx D3.0 says 6, descriptive text below assigning bits shows 7.

SuggestedRemedy

Align text with revision draft 802.3bx, and clarify how many bits.

Response *Response Status* **W**

ACCEPT. See #22

Cl **30** *SC* **30.12.1.33** *P* **19** *L* **38** # 32

Beaudoin, Denis — Texas Instruments

Comment Type **TR** *Comment Status* **A**

aLldpXdot3LocAddFragSize is defined as a 2 bit value, but is section 99.4.7.3 it is given values 0-7

SuggestedRemedy

A 3-bit integer value used to indicate...

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. It is intended to hold values between 0 and 3. It was initially 3-bits but then we decided that was excessively large and agreed on reducing it to 2-bits.

In 99.4.7.3 addFragSize, change "0:7" to "0:3"

Cl **30** *SC* **30.12.2** *P* **19** *L* **1** # 197

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

Editing instruction is in 30.12.2, but the changes are to a lower rank subclause, 30.12.2.1.

Similarly for 30.12.3.

SuggestedRemedy

Add subclause: 30.12.2.1 LLDP Local System Group attributes, and change the editing instruction to "insert new subclauses after..."

Similarly add subclause 30.12.3.1 and change editing instruction.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.2** *P* **19** *L* **1** # 90

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **R**

Newly added attributes do not define individual values in a clear fashion. For example, aLldpXdot3LocPreemptSupported indicates that "A read-only Boolean value used to indicate whether the given port (associated with the local system) supports preemption.capability;" - it is not clear what value is reported when said preemption is supported (true? supported? ok? anything else) and when not.
Also, these attributes do not define what happens with SET and GET operations.

SuggestedRemedy

Clarify the values for the following attributes: aLldpXdot3LocPreemptSupported, aLldpXdot3LocPreemptEnabled, aLldpXdot3LocPreemptActive, aLldpXdot3LocAddFragSize, aLldpXdot3RemPreemptSupported, aLldpXdot3RemPreemptEnabled, aLldpXdot3RemPreemptActive, aLldpXdot3RemAddFragSize.

Response *Response Status* **C**

REJECT. These definitions are consistent with other object definitions in the 802.3 LLDP MIB. See for example, 30.12.2.1.2, 30.12.2.1.6.

read-only means that a set won't change the value and a get will get the value.

Boolean menas that it is true if the condition is true, e.g. preemption capability is supported, and false otherwise.

Cl **30** *SC* **30.12.2.1.30** *P* *L* # 172

Law, David — HP

Comment Type **E** *Comment Status* **A**

Change '.. preemption capability ..' to read '... the preemption capability ...' as is already done in subclause 99.4.2 (page 35, line 45).

SuggestedRemedy

Change '.. preemption capability ..' to read '... the preemption capability ...' here and all other locations in the draft.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.2.1.30** *P* **19** *L* **12** # 198

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

Missing period at end of sentence (before semicolon).

Also in 30.12.3.1.24, 30.12.3.1.27, 30.12.3.1.33, 30.14.1

Also, missing semicolon after period in 30.14.1.6, 30.14.1.7.

SuggestedRemedy

Update to use periods and semicolons consistenly in these definitions.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.2.1.30** *P* **19** *L* **12** # 374

Scruton, Peter University of New Ham

Comment Type **E** *Comment Status* **A**

In Subclause 30.12.2.1.30 consider changing "preemption.capability;" to "preemption capability.;"

SuggestedRemedy

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.2.1.30** *P* **19** *L* **2** # 10

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**

The heading for 30.12.2.1 is missing

SuggestedRemedy

Add the heading for 30.12.2.1

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.2.1.30** *P* **19** *L* **4** # 11

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**

30.12.2.1.30 is already present in the base standard.

SuggestedRemedy

Change the editing instruction to:
"Insert 30.12.2.1.34 through 30.12.2.1.37 after 30.12.2.1.33 as follows:"
Renumber 30.12.2.1.30 through 30.12.2.1.33 to be 30.12.2.1.34 through 30.12.2.1.37.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.2.1.30** *P* **19** *L* **5** # 224

Ran, Adee Intel

Comment Type **ER** *Comment Status* **A**

802.3bx already added subclauses starting at "30.12.2.1.30 aLldpXdot3LocTxFw" and up to 30.12.2.1.33.

SuggestedRemedy

Renumber new subclauses starting at 30.12.2.1.34 instead of 30.12.2.1.30.

Response *Response Status* **W**

ACCEPT.

Cl **30** *SC* **30.12.3.1.24** *P* **19** *L* **44** # 12

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**

The heading for 30.12.3.1 is missing

SuggestedRemedy

Add the heading for 30.12.3.1

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.3.1.24** *P* **19** *L* **46** # 14

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

30.12.3.1.24 is already present in the base standard.

SuggestedRemedy

Change the editing instruction to:
"Insert 30.12.3.1.28 through 30.12.3.1.31 after 30.12.3.1.27 as follows:"
Renumber 30.12.3.1.24 through 30.12.3.1.27 to be 30.12.2.1.28 through 30.12.2.1.31.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.3.1.24** *P* **19** *L* **53** # 375

Scruton, Peter — University of New Ham

Comment Type **E** *Comment Status* **A**

In Subclause 30.12.3.1.24 consider changing "preemption.capability;" to "preemption capability.;"

SuggestedRemedy

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.12.3.1.27** *P* **20** *L* **19** # 91

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **R**

Attribute aLldpXdot3RemAddFragSize has very cryptic definiton: "A 2-bit integer value used to indicate, in units of 64 octets, the minimum number of octets over 64 octets required in non-final fragments by the receiver on the given port associated with the remote system;"

SuggestedRemedy

Is the intention to define the minimum fragment size? It would make much more sense to simply define it as INTEGER and then record the fragment size, and not some fragment size delta - these are MIB objects and not hardware registers!
Similar comment on aMACMergeAddFragSize

Response *Response Status* **W**

REJECT. All fragments have a minimum size of 64 octets. The purpose of this object is to request a size larger than that minimum for non-final fragments. If it was specifed as the fragment size rather than additional fragment size, we would have to define what happens for 0 which wouldn't be a legal minimum fragment size. By making it additional fragment size, there are no illegal values and each value means something distinct.

Cl **30** *SC* **30.12.3.1.27** *P* **20** *L* **27** # 376

Scruton, Peter — University of New Ham

Comment Type **E** *Comment Status* **A**

consider adding a period before the ';'

SuggestedRemedy

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14** *P* **20** *L* **29** # 15

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

The editing instruction should be more explicit

SuggestedRemedy

Change to: "Insert 30.14 after 30.13 as follows:"

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14** *P* **20** *L* **33** # 121

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **T** *Comment Status* **A**

A managed object "oMACMergeEntity" is also called "oMACMerge".
It is inconsistent.

SuggestedRemedy

Change "oMACMerge" with "oMACMergeEntity" at the following locations:

page 10, line 26
page 17, line 42
page 20, line 33
page 20, line 35

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1** *P* **20** *L* **35** # 113

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **A**

A period '.' is missing.

SuggestedRemedy

Add a period '.' at the end of the line 35, page 20.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1** *P* **20** *L* **36** # 190

Marris, Arthur — Cadence Design Syst

Comment Type **E** *Comment Status* **A**

Spelling

SuggestedRemedy

Change "behaviors" to "behaviours"

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1** *P* **20** *L* **37** # 60

Hajduczenia, Marek — Bright House Network

Comment Type **E** *Comment Status* **A**

Unnecessary empty lines 37-39

SuggestedRemedy

Remove empty lines

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1.10** *P* **22** *L* **47** # 187

Law, David — HP

Comment Type **TR** *Comment Status* **A**

To ensure interoperability, further details should be provided as to when this attribute is incremented.

SuggestedRemedy

Suggest the text 'The counter is incremented each time the FRAME_COMPLETE state of the Receive Processing state Diagram is entered when the previous invocation of the SMD_DECODE function returned "C"' should be added to the end of the behaviour description.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
'The counter is incremented each time the FRAME_COMPLETE state of the Receive Processing state diagram (Fig 99-) is entered when the previous invocation of the SMD_DECODE function returned "C"'.

Cl **30** *SC* **30.14.1.11** *P* **23** *L* **2** # 277

Regev, Alon — Ixia

Comment Type **TR** *Comment Status* **A**

in a previous draft, mFrame was renamed to mPacket, but there are still references to mFrame

SuggestedRemedy

On page 23 line 2, page 23 line 11, and page 34, line 9
change "mFrame" to "mPacket"

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1.11** *P* **23** *L* **2** # 181

Law, David HP

Comment Type **T** *Comment Status* **A** *Discuss*

Both this subclause, and subclause 30.14.1.12 references 'mFrame' but the only other instance of mFrame I can find in the whole draft is the heading of the first column of Table 99-1. It therefore may be clearer to reference mPacket. Regardless, is it correct to state that this would be a count of 'MAC frame fragments' since mFrames (or mPackets) include non-fragmentable verify, respond and express frames as well as non-fragmented preemptable frames.

SuggestedRemedy

Suggest the subclause 30.14.1.11 'aMACMergeFragCountRx' behaviour be updated to read 'A count of received mPackets (see 99.3.1).;' and the subclause 30.14.1.12 'aMACMergeFragCountTx' behaviour be updated to read 'A count of transmitted mPackets (see 99.3.1).;'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Correct instance of mFrame to mPacket.

Change these counters to count the number of times preemption occurs. That counts the additional fragments (which implies the additional overhead) for preemption. The MACs already count the total number of frames.
aMACMergeRxPrempt
Increments on the transition from P_RECEIVE_DATA to WAIT_FOR_DV_FALSE

aMACMergeTxPrempt
Increments on the transition from P_TX_COMPLETE to RESUME_PREAMBLE

Cl **30** *SC* **30.14.1.13** *P* **23** *L* **20** # 315

Tretter, Albert Siemens

Comment Type **T** *Comment Status* **A** *Discuss*

A count of times MM_CTL.request(HOLD) primitive assertion caused preemption of a preemptable
MAC frame.

=> Is it really the intention that this counter is only incrememented in cases if the MM_CTL.req primitive causes a preemption. If the primitive is activated and no preemption occurs than the counter shall not count??

Do we need an additional counter if an implementation uses the MACMerge Layer but not using the MM_CTL.request?

SuggestedRemedy

Clarification needed

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Upon discussion, we decided that there is already a counter of how often preemption occurs and that we should count how often hold occurs with this object.

A count of times MM_CTL.request(HOLD) primitive was received.

Cl **30** *SC* **30.14.1.2** *P* **21** *L* **10** # 147

Law, David HP

Comment Type **T** *Comment Status* **A**

Agree with note, the enumeration 'unknown' should be used when the verification status is unknown. Instead an additional enumeration should be provided for when verification has not been initiated.

SuggestedRemedy

Change the description of the enumeration 'unknown' to read 'verification of preemption operation is unknown'. Add an enumeration 'not initiated' that reads 'verification of preemption operation has not been initiated'. Delete the note.

Response *Response Status* **C**

ACCEPT. See 160

Cl **30** *SC* **30.14.1.2** *P* **21** *L* **10** # 341

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

Editor's note seems superflous. there is an attribute indicating verify disabled, and status already indicates as "unknown" only as prior to verifying.

SuggestedRemedy

Delete editor's note

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Most (all?) status objects have the value unknown to indicate that management doesn't know - e.g. management is unable to query the status. See 30.3.1.1.32 aDuplexStatus for an example. So for consistency with that, unknown should have the meaning it has for other status objects and another value should be created for verification not initiated as suggested in #147

Cl **30** *SC* **30.14.1.2** *P* **21** *L* **10** # 23

Anslow, Pete — Ciena

Comment Type **T** *Comment Status* **A**

Issue in editor's note should be resolved

SuggestedRemedy

Resolve the issue and remove the editor's note.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #147

Cl **30** *SC* **30.14.1.2** *P* **21** *L* **8** # 160

Law, David — HP

Comment Type **TR** *Comment Status* **A**

To ensure interoperability, further details should be provided as to how this attribute reflects the normative MAC Merge state diagrams, as for example is already done for 30.14.1.7 'aMACMergeAddFragSize' and 30.14.1.8 'aMACMergeFrameAssErrorCount'. Since this attribute relates to the verify status suggest it should map to Figure 99-7 'Verify State Diagram'.

SuggestedRemedy

Suggest the behaviour should be updated to read:

This attribute indicates (when accessed via a GET operation) the status of the MAC Merge verification function defined in 99.4.3 on the given device. The SET operation shall have no effect on a device.

The enumeration "unknown" indicates that the Verify State diagram (Figure 99-7) is in the state INIT_VERIFICATION. The enumeration "verifying" indicates that the Verify State diagram (Figure 99-7) is in the state VERIFICATION_IDLE, SEND_VERIFY or WAIT_FOR_RESPONSE. The enumeration "succeeded" indicates that the Verify State diagram is in the state VERIFIED. The enumeration "failed" indicates that the Verify State diagram is in the state VERIFY_FAIL.;

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
This attribute indicates (when accessed via a GET operation) the status of the MAC Merge verification function defined in 99.4.3 on the given device. The SET operation shall have no effect on a device.

The enumeration "unknown" indicates that the value is unknown. The enumeration "intial" indicates that
that the Verify State diagram (Figure 99-7) is in the state INIT_VERIFICATION. The enumeration "verifying" indicates that the Verify State diagram (Figure 99-7) is in the state VERIFICATION_IDLE, SEND_VERIFY or WAIT_FOR_RESPONSE. The enumeration "succeeded" indicates that the Verify State diagram is in the state VERIFIED. The enumeration "failed" indicates that the Verify State diagram is in the state VERIFY_FAIL.;

Cl **30** *SC* **30.14.1.3** *P* **21** *L* **13** # 291

Tretter, Albert Siemens

Comment Type **E** *Comment Status* **A**

The attribute aMACMergeStatusTx contains the direction "Tx". Should the attribute aMACMergeStatusEnable not also have the extension "Tx).

Because preemption is only enabled at Tx side and also in the description it is mentioned that it is only relevant for the transmit direction (...given device in the transmit direction)

SuggestedRemedy

Change the name of the attribute to aMACMergeStatusEnableTx

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1.3** *P* **21** *L* **14** # 148

Law, David HP

Comment Type **T** *Comment Status* **A**

Since this is a GET-SET attribute, and therefore not just status, suggest that 'status' be removed from the attribute name.

SuggestedRemedy

Change 'aMACMergeStatusEnable' to ' aMACMergeEnable' here, and throughout the draft.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1.3** *P* **21** *L* **21** # 161

Law, David HP

Comment Type **TR** *Comment Status* **A**

To ensure interoperability, further details should be provided as to how this attribute interacts with the normative MAC Merge state diagrams, as for example is already done for 30.14.1.7 'aMACMergeAddFragSize' and 30.14.1.8 'aMACMergeFrameAssErrorCount'. Since this attribute relates to the enabling MAC Merge suggest it should map the state diagram variable pEnable.

SuggestedRemedy

Suggest the text 'This attribute maps to the variable pEnable (see 99.4.7.3).' should be added to the end of the behaviour description.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1.4** *P* **21** *L* **28** # 162

Law, David HP

Comment Type **TR** *Comment Status* **A**

To ensure interoperability, further details should be provided as to how this attribute interacts with the normative MAC Merge state diagrams, as for example is already done for 30.14.1.7 'aMACMergeAddFragSize' and 30.14.1.8 'aMACMergeFrameAssErrorCount'. Since this attribute relates to the disabling verification suggest it should map the state diagram variable disableVerify.

SuggestedRemedy

Suggest the text 'This attribute maps to the variable disableVerify (see 99.4.7.3).' should be added to the end of the behaviour description.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1.5** *P* **21** *L* **43** # 163

Law, David HP

Comment Type **TR** *Comment Status* **A**

To ensure interoperability, further details should be provided as to how this attribute reflects the normative MAC Merge state diagrams, as for example is already done for 30.14.1.7 'aMACMergeAddFragSize' and 30.14.1.8 'aMACMergeFrameAssErrorCount'. Since this attribute relates to the transmit preemption status suggest it should map to Figure 99-4 'Transmit Processing State Diagram'.

In addition, since the status of the MAC Merge function in the transmit direction is not impacted by the status of verification when disableVerify is set TRUE, and the state of disableVerify and verification are indicated by the aMACMergeVerifyDisable and aMACMergeStatusVerify attributes respectively, suggest that this attribute should only reflect the status of the MAC Merge function in the transmit direction.

SuggestedRemedy

Suggest that there should only be three enumerations that read:

unknown transmit preemption status is unknown
inactive transmit preemption is inactive
active verification succeeded and transmit preemption is active

and that the text 'This attribute maps to the variable preempt (see 99.4.7.3).' should be added to the end of the behaviour description.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Change as the commenter proposes except that active should be:
active transmit preemption is active
because verification can be disabled and aMACMergeStatusVerify can be queried to find out whether verification succeeded or was disabled.

Cl **30** *SC* **30.14.1.6** *P* **22** *L* **6** # 164

Law, David HP

Comment Type **TR** *Comment Status* **A**

To ensure interoperability, further details should be provided as to how this attribute reflects the normative MAC Merge state diagrams, as for example is already done for 30.14.1.7 'aMACMergeAddFragSize' and 30.14.1.8 'aMACMergeFrameAssErrorCount'. Since this attribute relates to configuring the rate at which verification mPacket retries occur suggest this map to verify_timer.

SuggestedRemedy

Assuming my comment to define the variable verifyTime is accepted, suggest the text 'This attribute maps to the variable verifyTime (see 99.4.7.3).' should be added to the end of the behaviour description. If not the text 'This attribute maps to verifyTimer (see 99.4.7.6).' should be added to the end of the behaviour description.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1.6** *P* **22** *L* **8** # 377

Scruton, Peter University of New Ham

Comment Type **E** *Comment Status* **A**

consider adding ';' to end of line.

SuggestedRemedy

Response *Response Status* **C**

ACCEPT. Also line 17

Cl **30** *SC* **30.14.1.7** *P* **22** *L* **16** # 146

Law, David HP

Comment Type **T** *Comment Status* **A**

The attribute aMACMergeAddFragSize states that it is a '2-bit integer value used to indicate the value of addFragSize variable used by the Transmit Processing State Machine' yet subclause 99.4.7.3 'Variables' of the Transmit Processing State Machine states that addFragSize is an 'integer in the range 0:7' which requires 3 bits.

SuggestedRemedy

Change 'A 2-bit integer value ...' to read 'A 3-bit integer value ...'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See comment #32

Cl **30** *SC* **30.14.1.7** *P* **22** *L* **17** # 378

Scruton, Peter University of New Ham

Comment Type **E** *Comment Status* **A**

consider adding ';' to end of line.

SuggestedRemedy

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1.8** *P* **22** *L* **24** # 61

Hajduczenia, Marek Bright House Network

Comment Type **E** *Comment Status* **A**

missing "." in line 24. Multiple other lines are also missing "." at the end, for example (page / line):
22 / 24
22 / 34
22 / 45
22 / 54
23 / 9
23 / 18

SuggestedRemedy

Add missing "."

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.14.1.9** *P* **22** *L* **38** # 180

Law, David HP

Comment Type **T** *Comment Status* **A**

The behaviour states that the counter is incremented when a fragment is rejected due to a unknown SMD value, but an unknown SMD value in the state CHECK_FOR_RESUME will cause a transition to WAIT_FOR_DV_FALSE, not to BAD_FRAG which is what the behaviour states will increment the counter.

SuggestedRemedy

Suggest the text '... is entered (see 99.4.7.7).;' be changed to read 'is entered, or when the WAIT_FOR_DV_FALSE state is entered due to the invocation of the SMD_DECODE function returning the value "ERR" (see 99.4.7.7).;'.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.2.2.1** *P* **15** *L* **3** # 7

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**

The intermediate headings between "30" and 30.2.2.1" should be shown.

SuggestedRemedy

Add headings for 3.2 and 30.2.2

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.2.3** *P* **15** *L* **30** # 347

Zimmerman, George CME Consulting, Inc.

Comment Type **ER** *Comment Status* **A**

looks like replacement for 30-3 is missing, following editing instruction, "Replace Figure 30-3 with the following" - surely it wasn't meant to replace the figure with an editor's note.
Figure appears to be on following page

SuggestedRemedy

Put replacement for Figure 30-3 immediately after editing instruction.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. Change the editing instruction instead to: Replace Figure 30-3 with the figure shown below

Cl **30** *SC* **30.2.3** *P* **15** *L* **33** # 338

Zimmerman, George CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

Editor's note has hanging "[" , and close "]" ended up in title of 30.2.5

SuggestedRemedy

Delete "[" from editor's note and "]" from title of 30.2.5

Additionally, if possible, avoid dark (forest) green lines in figures to distinguish. 1 in 15 males are red-green colorblind. Blue or yellow are better choices.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
Keep the initial bracket and move the closing bracket from the title to the end of the note.
Editor's notes are enclosed in brackets.

Even if one cannot distinguish the color, the line is distinguished from other lines in the figure by being dashed. This is consistent with the style guide which says:
Color in figures shall not be required for proper interpretation of the information.

We are deleting the note and the line as they have served their purpose.

Cl **30** *SC* **30.2.3** *P* **16** *L* **23** # 339

Zimmerman, George CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

Figure 30-3:
Mixture of fonts in figure (most boxes are sans-serif, oEXTENSION, oPD, and oTimesync are in a Times font)
Although highlighting the change is laudable, green insert line is difficult to distinguish from black for some (1 in 15 males are red-green colorblind to some degree, and I'm one).

SuggestedRemedy

Redraw figure with so boxes have same font in 802.3 style.
Avoid green lines in figures to highlight - blue or yellow are a better choice.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Correct the font.

Even if one cannot distinguish the color, the line is distinguished from other lines in the figure by being dashed. This is consistent with the style guide which says:
Color in figures shall not be required for proper interpretation of the information.

Cl **30** *SC* **30.2.5** *P* **15** *L* **36** # 189
Marris, Arthur Cadence Design Syst

Comment Type **E** *Comment Status* **A**
Remove spurious "]"

SuggestedRemedy
Change:
"30.2.5]Capabilities"
to:
"30.2.5 Capabilities"

Response *Response Status* **C**
ACCEPT IN PRINCIPLE. See #338

Cl **30** *SC* **30.2.5** *P* **15** *L* **36** # 8
Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**
Spurious "]" in heading

SuggestedRemedy
Change "]Capabilities" to "Capabilities"

Response *Response Status* **C**
ACCEPT IN PRINCIPLE. See #338

Cl **30** *SC* **30.2.5** *P* **15** *L* **36** # 237
Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**
Extra "]" before Capabilities

SuggestedRemedy
Change "]Capabilities" to "Capabilities"

Response *Response Status* **C**
ACCEPT IN PRINCIPLE. See #338

Cl **30** *SC* **30.2.5** *P* **15** *L* **36** # 59
Hajduczenia, Marek Bright House Network

Comment Type **E** *Comment Status* **A**
Extra "[" in heading of 30.2.5

SuggestedRemedy
Remove "[" in heading of 30.2.5

Response *Response Status* **C**
ACCEPT IN PRINCIPLE. See #338

Cl **30** *SC* **30.2.5** *P* **15** *L* **36** # 372
Scruton, Peter University of New Ham

Comment Type **E** *Comment Status* **A**
Sublause 30.2.5 title has ']' in it.

SuggestedRemedy

Response *Response Status* **C**
ACCEPT IN PRINCIPLE. See #338

Cl **30** *SC* **30.2.5** *P* **15** *L* **36** # 110
Hidaka, Yasuo Fujitsu Lab of America

Comment Type **E** *Comment Status* **A**
There is a garbage character ']' in front of clause title text.

SuggestedRemedy
Remove ']' in front of clause title text.

Response *Response Status* **C**
ACCEPT IN PRINCIPLE. See #338

Cl **30** *SC* **30.2.5** *P* **15** *L* **36** # 36
Booth, Brad Microsoft

Comment Type **E** *Comment Status* **A**
There is a miscellaneous bracket in the heading.

SuggestedRemedy
Looks like the bracket for the editor's note got put in the heading. Relocate the bracket.

Response *Response Status* **C**
ACCEPT IN PRINCIPLE. See #338

Cl **30** *SC* **30.2.5** *P* **15** *L* **36** # 101

Healey, Adam — Avago Technologies

Comment Type **E** *Comment Status* **A**

Extraneous "]" in the heading.

SuggestedRemedy

Remove it.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #338

Cl **30** *SC* **30.2.5** *P* **15** *L* **54** # 342

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

Copyright jumped back to 2014. Copyright jumps around in the draft between 201x, 2015 and 2014

SuggestedRemedy

Make all copyright 2015.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.2.5** *P* **17** *L* **1** # 340

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

New tables 30-8 and 30-9 have blank column at right edge

SuggestedRemedy

Remove blank column from tables 30-8 and 30-9

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.2.5** *P* **17** *L* **1** # 111

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **R**

New Table 30-8 should be amendment to Table 30-7 at the right most column, not a new table.

SuggestedRemedy

Add LLDP MAC Merge Package (optional) as the right most column of Table 30-7.
Add aLldpXdot3Loc* in Table 30-8 in page 17 at the end of "oLldpXdot3LocSystemsGroup managed object class (30.12.2)" in Table 30-7.
Add aLldpXdot3Rem* in Table 30-8 in page 17 at the end of "oLldpXdot3RemSystemsGroup managed object class (30.12.3)" in Table 30-7.
Change "Table 30-8 and Table 30-9" in page 15, line 38 with "Table 30-8".
Change "Table 30-9" in page 15, line 48 with "Table 30-8".
Renumber "Table 30-9" in page 17 as "Table 30-8".

Response *Response Status* **C**

REJECT. Table 30-7 is about as wide as it can be so a new table was added to provide more space.

Cl **30** *SC* **30.2.5** *P* **17** *L* **20** # 132

Law, David — HP

Comment Type **E** *Comment Status* **A**

We use 'GET-SET' in the packaget tables, not 'GET/SET'.

SuggestedRemedy

Replace 'GET/SET' with 'GET-SET' here, on line 46, and on page 18 lines 17 and 18.

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.2.5** *P* **17** *L* **46** # 112

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **A**

The order of rows of Table 30-9 is inconsistent with the order of subclauses of 30.14.1.

SuggestedRemedy

Move the row of "aMACMergeVerifyDisable" after the row of "aMACMergeStatusEnable".
Move the row of "aMACMergeStatusTx" before the row of "aMACMergeVerifyTime".

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.2.5** *P* **17** *L* **46** # 107

Healey, Adam — Avago Technologies

Comment Type **T** *Comment Status* **A**

Several attributes are not assigned to any package (aMACMergeVerifyDisable, aMACMergeVerifyTime, aMACMergeAddFragSize, aMACMergeHoldCount).

SuggestedRemedy

Assign the attributes to the appropriate package.

Response *Response Status* **C**

ACCEPT. Add to the MAC Merge basic package

Cl **30** *SC* **30.2.5** *P* **17** *L* **46** # 133

Law, David — HP

Comment Type **E** *Comment Status* **A**

Recommend that the order of the capabilities table follows the subclause order.

SuggestedRemedy

Order should be:

aMACMergeSupport
aMACMergeStatusVerify
aMACMergeStatusEnable
aMACMergeVerifyDisable
aMACMergeStatusTx
aMACMergeVerifyTime
aMACMergeAddFragSize
aMACMergeFrameAssErrorCount
aMACMergeFrameSmdErrorCount
aMACMergeFrameAssOkCount
aMACMergeFragCountRx
aMACMergeFragCountTx
aMACMergeHoldCount

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.2.5** *P* **17** *L* **46** # 122

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **T** *Comment Status* **A**

Some Xs are missing in Table 30-9.

SuggestedRemedy

Add Xs for the following rows in Table 30-9:

aMACMergeVerifyDisable
aMACMergeVerifyTIme
aMACMergeAddFragSize
aMACMergeHoldCount

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.2.5** *P* **17** *L* **46** # 149

Law, David — HP

Comment Type **T** *Comment Status* **A**

The attributes aMACMergeVerifyDisable, aMACMergeVerifyTime, aMACMergeAddFragSize and aMACMergeHoldCount are missing any indication of the package they belong to, assume they should be part of the MAC Merge Basic Package.

SuggestedRemedy

Add an 'X' in the MAC Merge Basic Package for the attributes attributes aMACMergeVerifyDisable (line 46), aMACMergeVerifyTime (page 18, line 18), aMACMergeAddFragSize (page 18, line 19) and aMACMergeHoldCount (page 18, line 25).

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.2.5** *P* **18** *L* **17** # 348

Zimmerman, George — CME Consulting, Inc.

Comment Type **TR** *Comment Status* **A**

Parameters with no packages selected in table 30-9 make no sense - what packages include these? why are they here? is this technically complete?
aMACMergeVerifyTime
aMACMergeAddFragSize
aMACMergeHoldCount

SuggestedRemedy

Add a note explaining how these are offered, what is meant by blank rows or delete rows from table, and capabilities from draft.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. Add the missing X's to the basic package and delete the blank rows.

Cl **79** *SC* **79.3** *P* **24** *L* **14** # 108

Healey, Adam — Avago Technologies

Comment Type **T** *Comment Status* **A**

In Table 79-1 and Figure 79-6, the IEEE 802.3 subtype is TBD. The subclause reference in Table 79-1 is 79.3.6 which defines "EEE Fast Wake TLV" in the approved amendment IEEE Std 802.3bj-2014.

SuggestedRemedy

Assign the "Additional Ethernet Capabilities" subtype (suggest 7). Renumber 79.3.6 to 79.3.7 and update the subclause reference in Table 79-1 accordingly.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Renumber subclause
See #280

Cl **79** *SC* **79.3** *P* **24** *L* **14** # 232

Ran, Adee — Intel

Comment Type **TR** *Comment Status* **A**

In Table 79-1, subtype should have a value (not TBD).

SuggestedRemedy

Change TBD to 7 (first unused subtype as of 802.3bx).
Change last row to define subtypes 8-255 as reserved.

Response *Response Status* **W**

ACCEPT. See #280

Cl **79** *SC* **79.3** *P* **24** *L* **14** # 193

Marris, Arthur — Cadence Design Syst

Comment Type **TR** *Comment Status* **A**

TBD value in table.

Also 79.3.6 is currently used by "EEE Fast Wake TLV"

SuggestedRemedy

Replace TBD with actual value, probably 7.

Make new subclause 79.3.7

Response *Response Status* **W**

ACCEPT.
Correct the subclause number.

See #280

Cl **79** *SC* **79.3** *P* **24** *L* **14** # 56

Grow, Robert — RMG Consulting

Comment Type **T** *Comment Status* **D**

I don't think order of assignment is a big secret, replace the TBD.

SuggestedRemedy

TBD goes to 7, reserved range to 8-255, and rewrite the editing instruction accordingly

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE. See #280

Cl **79** *SC* **79.3** *P* **24** *L* **14** # 350

Zimmerman, George — CME Consulting, Inc.

Comment Type **TR** *Comment Status* **A**

Table 79-1
Subtype is missing.
Improper editing instruction - specify where to insert the row.
Subtype TBD? Subtype should be numeric
Doesn't the Reserved row need to be modified as well

SuggestedRemedy

Change editing instruction to be consistent with 802.3bx D3.0:
"Insert row shown below Subtype 6, and change last row in table as shown"
replace Subtype TBD with Subtype 7
Show row for Reserved, with strikeout of 7, replaced by 8.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. See #280

Cl **79** *SC* **79.3** *P* **24** *L* **14** # 280

Slavick, Jeff — Avago Technologies

Comment Type **TR** *Comment Status* **A**

In Table 79-1 the IEEE 802.3 subtype is TBD

SuggestedRemedy

Change to TBD to a value that is currently Reserved and change the Reserved list to remove the chosen value from the list of Reserved settings.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE.
Add a note that this will be assigned in the first Sponsor ballot draft and the updated line for reserved values. Values for subtypes are assigned when going to sponsor ballot.

Cl **79** *SC* **79.3** *P* **24** *L* **14** # 37

Booth, Brad — Microsoft

Comment Type **TR** *Comment Status* **A**

There should not be a TBD in Table 79-1.

SuggestedRemedy

Change TBD to be 6. Show the change to the last line of Table 79-1 to have a range of 7 to 255.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. See #280

Cl **79** *SC* **79.3** *P* **24** *L* **14** # 93

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **A**

TBD in Table 79–1 - time to decide what this is going to be

SuggestedRemedy

Change TBD with the appropriate value for this new "Additional Ethernet Capabilities" subtype. The same value should be then propagated into 79.3.6 as well and Figure 79–6. "6" seems to be the next free number as of 802.3bx

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. See #280
6 is in use by EEE.

Cl **79** *SC* **79.3** *P* **24** *L* **14** # 257

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **A**

Working Group ballots should not contain TBD values.

SuggestedRemedy

On Page 24, line 14, change "TBD" to "6"
On Page 24, line 25, change "802.3 subtype = TBD" to "802.3 subtype = 6"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #280 Also, the value 6 is already in use by EEE.

Cl **79** *SC* **79.3** *P* **24** *L* **7** # 24

Anslow, Pete — Ciena

Comment Type **T** *Comment Status* **A**

The editing instruction does not say where the new row should be inserted and the modification to the reserved row should be explicit.
The new subtype number should not be TBD.

SuggestedRemedy

Change the editing instruction to:
"Change the reserved row in Table 79-1 and insert a new row above it as follows (unchanged rows not shown):"
Add the reserved row to the table in the draft and show "7–255" in strikethrough font and "8 to 255" in underline font. (numbers separated by a "-" in this way are outlawed in the IEEE style guide).
In the new row, change "TBD" to "7"
In Figure 79-6 change "TBD" to "7"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #280

Cl **79** *SC* **79.3.6** *P* **24** *L* **16** # 52

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **A**

Interesting that the draft follows the style guide for Figures and Tables but not for subclauses. As written, it is typical to include renumber in editing instruction unless following the IEEE Style guide for subclauses where this would become 79.3.5a.

SuggestedRemedy

Either follow the style guide, or include “renumbering following subclauses” in editorial instruction.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. This is intended to be added as the last subclause in 79.3 so there are no following subclauses to renumber. The subclause number will be changed to 79.3.7 as there is a 79.3.6 and this should go after that.

Cl **79** *SC* **79.3.6** *P* **24** *L* **18** # 225

Ran, Adee — Intel

Comment Type **ER** *Comment Status* **A**

Subclause 79.3.6 already exists, EEE fast wake (added in 802.3bj).

SuggestedRemedy

Renumber 79.3.6 to 79.3.7.

Response *Response Status* **W**

ACCEPT.

Cl **79** *SC* **79.3.6** *P* **24** *L* **18** # 368

Remein, Duane — FutureWei Technologi

Comment Type **E** *Comment Status* **A**

Per current 802.3 templace this shold be 79.3.5a not 79.3.6 (which exists in the standard already.

SuggestedRemedy

Renumber 79.3.6 and all it's subclauses to 79.3.5a per template.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #52

Cl **79** *SC* **79.3.6** *P* **24** *L* **18** # 16

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

79.3.6 is already present in the base standard.
Figure 79-6 is already present in the base standard.

SuggestedRemedy

Change the new subclause from 79.3.6 to 79.3.7
Change Figure 79-6 to Figure 79-8

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.3.6** *P* **24** *L* **27** # 351

Zimmerman, George — CME Consulting, Inc.

Comment Type **TR** *Comment Status* **A**

Specify subtype

SuggestedRemedy

Replace Subtype = TBD with appropriate subtype consistent with 802.3bx D3.0 (suggest Subtype 7).

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. See #280

Cl **79** *SC* **79.3.6** *P* **24** *L* **27** # 316

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

802.3 subtype = TBD

=> "TBD" should be resolved

SuggestedRemedy

=> "TBD" should be resolved

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #280

Cl **79** *SC* **79.3.6** *P* **24** *L* **28** # 227

Ran, Adee Intel

Comment Type **T** *Comment Status* **R**

No previous TLV defined in clause 79 has variable length and such a generic name.

It seems likely that new capabilities will define new TLV subtypes rather than piggyback on an existing subtype format (this new TLV is a good example - it is defined instead of using reserved bits in previously defioned TLVs).

SuggestedRemedy

Rename this TLV to "Preemption capability" and set a fixed length of 1 octet.

Response *Response Status* **C**

REJECT. Reserved bits in existing TLVs weren't used because there is no general capabilies TLV.

TLV space is limited since LLDP only allows for one frame of TLVs. Creating a new TLV each time we create a new capability requires 7 octets of TLV to send a few bits. Therefore, it makes sense to group the information into a single TLV going forward.

Cl **79** *SC* **79.3.6** *P* **24** *L* **28** # 199

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

Inconsistent alignment.

SuggestedRemedy

Align "7 bits" to the center of the TLV type box.

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.3.6** *P* **24** *L* **32** # 369

Remein, Duane FutureWei Technologi

Comment Type **E** *Comment Status* **A**

This figure is incorrectly numbered as Figure 79-6 already exists in 79.3.5

SuggestedRemedy

Change to Figure 79-6a per current template.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. It should be changed to Figure 79-8.

Cl **79** *SC* **79.3.6.1** *P* **24** *L* **41** # 49

Grow, Robert RMG Consulting

Comment Type **T** *Comment Status* **A** *Dscuss*

Ignore something that isn't received? That is pretty easy but not what I think was intended. PICS AET4 is not supported by text. Need to improve description.

SuggestedRemedy

An implementation shall transmit all Reserved bits as zero, and ignore received Reserved bits. Reserved octets shall not be transmitted and if more octets are received that were defined as other than Reserved, the additional octet(s) shall be ignored. If fewer octet(s) are received than defined, the implementation shall act as if the additional octet(s) were received as zero.

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.3.6.1** *P* **25** *L* **14** # 17

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**

The IEEE style manual contains:
"Ranges should repeat the unit (e.g., 115 V to 125 V). Dashes should never be used because they can be misconstrued as subtraction signs."

SuggestedRemedy

In Table 79-7a, change:
"3-4" to "3 to 4" and "5-15" to "5 to 15"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Put a colon in place of the dash. That is more consistent with other tables in the Clause (though there are several cases in the Clause where a dash is used for the range of reserved bits or values).

Cl **79** *SC* **79.4.2** *P* **24** *L* **53** # 13

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**

Space missing in editing instruction.

SuggestedRemedy

Change "Table 79–9and Table 79–10" to "Table 79–9 and Table 79–10"

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.4.2** *P* **24** *L* **53** # 370

Remein, Duane FutureWei Technologi

Comment Type **E** *Comment Status* **A**

missing space in editors instruction: "of Table 79-9and"

SuggestedRemedy

change to "of Table 79-9 and"

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.4.2** *P* **24** *L* **54** # 247

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

missing space between "Table 79-9" and "and"

SuggestedRemedy

Change "Table 79–9and" to "Table 79–9 and"

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.4.2** *P* **25** *L* **1** # 371

Remein, Duane FutureWei Technologi

Comment Type **E** *Comment Status* **A**

Missing editing instruction for Table 79-7a. This appear to be a new table and part of 79.3.6.1 (which should be 79.3.5a.1 see related comment).

SuggestedRemedy

Change Editing Instruction pg 24 line 16 from: "Insert Subclause 79.3.6 following subclause 79.3.5.5." to: "Insert Subclause 79.3.5a, subclauses and Table 79-7a as follows."Organize text so 79.4 appear after the new table.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Cl **79** *SC* **79.4.2** *P* **25** *L* **1** # 62

Hajduczenia, Marek Bright House Network

Comment Type **E** *Comment Status* **A**

Text in column Function in Table 79–7a should be left justified and not centered.

SuggestedRemedy

Per comment. Also, break text lines in such a way that words are not broken between lines - it impares readability and serves no purpose. A force line break would be most welcome. Same observation applies to Table 79–9 and Table 79–10

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Text under function is centered in most other tables in the clause so that will remain the same. (One table has some entries left justified and one entry centered.)

The editor will attempt to add forced line breaks to prevent word preemption.

Cl **79** *SC* **79.4.2** *P* **25** *L* **12** # 248

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

"0=not active" should be "0 = not active" to match the format elsewhere

SuggestedRemedy

Chagne "0=not active" to "0 = not active"

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.4.2** *P* **25** *L* **23** # 71

Hajduczenia, Marek Bright House Network

Comment Type **ER** *Comment Status* **A**

Format of Table 79–9 and Table 79–10 does not meet style manual and current template

SuggestedRemedy

Apply proper template to both tables.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The bottom border will be fixed

Cl **79** *SC* **79.4.2** *P* **25** *L* **37** # 114

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **A**

The bottom border line of Table 79-9 is not thick.

SuggestedRemedy

Make the bottom border line of Table 79-9 thick.

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.4.2** *P* **25** *L* **54** # 115

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **A**

The bottom border line of Table 79-10 is not thick.

SuggestedRemedy

Make the bottom border line of Table 79-10 thick.

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.5.11** *P* **26** *L* **18** # 236

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

"Capabilities" misspelled as "Capabilites"

SuggestedRemedy

change "Capabilites" to "Capabilities".

Also regenerate the Table of Contents to correct there.

Response *Response Status* **C**

ACCEPT.

Cl **79** *SC* **79.5.3** *P* **26** *L* **12** # 293

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **R**

*AE => Additional Ethernet Capabilities TLV

Meaning of "*" at "*AE" in column Item not clear.

There is no explanation?

SuggestedRemedy

Specify the meaning or delete the "*"

Response *Response Status* **C**

REJECT. It is explained in the Clause 21 PICS which the Clause 79 PICS references for PICS symbols:
"Each item whose reference is used in a conditional symbol is indicated by an asterisk in the Item column."

Cl **88** *SC* **99.2.3.1** *P* **32** *L* **18** # 81

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **A**

"This primitive defines the transfer a request from a MAC Client to MAC Merge to hold or release transmission of frames from the pMAC." - "frames from the pMAC" are called "preemptable traffic" - defined before.

SuggestedRemedy

Change to read: "This primitive defines the transfer a request from a MAC Client to the MAC Merge sublayer, controlling the transmission of express and preemptable traffic."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The existing sentence doesn't quite parse. Delete "the transfer"

The request doesn't control the transmission of express frames. Replace "frames from the pMAC" with "preemptable traffic"
"This primitive defines a request from a MAC Client to MAC Merge to hold or release transmission of preemptable traffic."

Cl **90** *SC* **90.4.2** *P* **27** *L* **7** # 72

Hajduczenia, Marek — Bright House Network

Comment Type **ER** *Comment Status* **A**

There are no changes to 90.4.2, 90.4.3, 90.4.3.1, 90.4.3.1.2, 90.4.3.1.3 , 90.4.3.2, 90.4.3.2.2, 90.4.3.2.3 - remove from the draft

SuggestedRemedy

pre comment

Response *Response Status* **C**

ACCEPT.

Cl **90** *SC* **90.4.3.1.1** *P* **27** *L* **26** # 228

Ran, Adee — Intel

Comment Type **T** *Comment Status* **R**

"MM" is not a meaningful name for this parameter. Also, this name is used both in TS_TX.indication and in TS_RX.indication, although tha parameter meaning is not identical.

SuggestedRemedy

Rename MM to MM_SOURCE in TS_TX and to MM_SINK in TS_RX.

Response *Response Status* **C**

REJECT.
The parameter name is MM because it only applies when the MAC Merge sublayer is present. Usually, the same parameter has the same name in different primitives. It wasn't felt that the longer name added meaning and one already know whether the packet was being sourced or sinked based on which primitive is used.

Cl **90** *SC* **90.4.3.1.1** *P* **27** *L* **32** # 194

Marris, Arthur — Cadence Design Syst

Comment Type **TR** *Comment Status* **A**

It is not clear whay Clause 90 needs to be modified to indicate the source of the SFD indication.

SuggestedRemedy

Either:
Do not include Clause 90 in 802.3br
Or:
Give a proper description of the purpose of the MM parameter

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. Clause 90 gives the indication based on seeing an SFD. When preemption is active, packets from the pMAC don't SFDs so some change is needed.

Adding the parameter helps the MAC Client know which path produced the TSSI when MA_data.requests have been sent on both client interfaces and as MA_data.indications arrive on both interfaces.

See also #188

Cl **90** *SC* **90.4.3.1.1** *P* **27** *L* **32** # 94

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **A**

Description of MM parameter is cryptic and does not follow standard 802.3 description.

SuggestedRemedy

Change lines 32-35 to read as follows:

The MM parameter is optional and present only when the MAC Merge (see Clause 99) is instantiated. The MM parameter, when present, can take one of two possible values, i.e., PMAC or EMAC. When PMAC value is set and the SFD parameter is asserted (SFD = DETECTED), the TimeSync Client is notified that a valid SFD from pMAC was detected. When EMAC value is set and the SFD parameter is asserted (SFD = DETECTED), the TimeSync Client is notified that a valid SFD from eMAC was detected.

Response *Response Status* **W**

ACCEPT.

Cl **90** *SC* **90.4.3.1.1** *P* **27** *L* **33** # 188

Law, David HP

Comment Type **TR** *Comment Status* **A** *Discuss*

The TSII is defined in terms of xMIT signalling yet the MAC MERGE sublayer does not have access to xMIT, so I don't see how the MAC MERGE can be the gRS sublayer when instantiated. In addition this text states the value PMAC indicates a SFD from the PMAC, but at the xMII there will not be the SFD value, instead a SMD-S will occur (see Table 99-1).

SuggestedRemedy

Change the text so that that MM parameter is mandatory for gRS sublayer supporting TimeSync when layer above is MACMerge. The value EMAC indicates the SMD-E (SFD) value has been detected at the xMII, the value PMAC indicates that a SMD-5 value has been detected at the xMII (see Table 99-1). Make similar changes for the receive path.

Response *Response Status* **C**

ACCEPT.

Cl **90** *SC* **90.4.3.2.1** *P* **28** *L* **7** # 95

Hajduczenia, Marek Bright House Network

Comment Type **TR** *Comment Status* **A**

Description of MM parameter is cryptic and does not follow standard 802.3 description.

SuggestedRemedy

Change lines 32-35 to read as follows:

The MM parameter is optional and present only when the MAC Merge (see Clause 99) is instantiated. The MM parameter, when present, can take one of two possible values, i.e., PMAC or EMAC. When PMAC value is set and the SFD parameter is asserted (SFD = DETECTED), the TimeSync Client is notified that a valid SFD from pMAC was detected. When EMAC value is set and the SFD parameter is asserted (SFD = DETECTED), the TimeSync Client is notified that a valid SFD from eMAC was detected.

Response *Response Status* **W**

ACCEPT.

Cl **90** *SC* **90.5** *P* **28** *L* **29** # 200

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

gRs should be gRS.

SuggestedRemedy

Change gRs to gRS.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* *P* *L* # 336

Zimmerman, George CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

page header messed up starting with table of contents: "IEEE P802.3xx Task Force name Task Force" (it started out correct in the front matter, and returns to correct following the TOC)

SuggestedRemedy

Change header to read "IEEE 802.3br Interspersing Express Traffic Task Force"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* *P* *L* # 50

Grow, Robert RMG Consulting

Comment Type **E** *Comment Status* **A**

You get the joy of trying to figure out if a user of the Generic Comment tool following instructions is commenting on clause 99 or front matter.

SuggestedRemedy

Fix (or get someone to fix) the red text on the Generic Comment tool to suggest something other than 99 for front matter. I tried 999 for my front matter comment.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. This comment will be referred to the IEEE 802.3 chief editor.

I usually use 00 for front matter.

Cl **99** SC P L # 365

Dove, Dan — Dove Networking Solut

Comment Type **T** *Comment Status* **R** *Discuss*

The use of Start_of_Frame_Delimiter (SFD) to articulate state of a packet is a questionable practice as it exposes packets to a potential Hamming Distance failure. I don't have the time or specific expertise to analyze the approach being used, but want to express my concern about this approach with the hope that others within this project will carefully consider that concern.

In addition, the approach appears to reliy upon the byte-orientation of the receiver to clearly identify the state of the packet being received. Many PHYs in the industry use nibble-based alignment due to implementations like RGMII, etc. While one can rely upon Auto-Negotiation to ensure that an older PHY architected with RGMII does not go into IET mode of operation, the specification may not have considered the implications upon those who wish to retain RGMII implementation while incorporating IET into their designs. I don't have the detailed implementation knowledge required to address this, but suggest that PHY implementers who are involved in such designs carefully consider the impact to their designs.

SuggestedRemedy

Response *Response Status* **C**

REJECT. IEEE 802.3 uses the SFD to determine the start of the packet even though it is the one part of 802.3 that doesn't have a Hamming distance of 4. The impact of that was analysed at the beginning of IEEE 802.3 and determined to be acceptable. This amendment doesn't make that any worse. The new delimiters introduced have a greater hamming distance than the distance between the SFD and preamble.

No assumption is being made about a byte aligned MII. The only assumption is that the PHYs do not drop or insert a partial octet of preamble bits. The 10 Mb/s implementations without active idles and deprecated 100 Mb/s half duplex PHYS are the only PHYs that drop a partial octet of preamble bits and this amendment specifies that it is for use with Full Duplex MACs operating at 100 Mb/s and higher.

Many of our PCS sublayers can only transmit data with an integer number of octets so even if we made this assumption, it isn't any different than those PCS sublayers are making.

Cl **99** SC P **10** L **15** # 335

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

Table of contents:
page 10, line 15: extraneous "]" on 30.2.5
page 11, line 42: extraneous "[" on 90.4.4

SuggestedRemedy

Remove "]" and "[" - (looks like they're actually in the headers of 30.2.5 and 90.4.4

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. For page 10, the bracket needs to be on the editor's note. Delete the one on 99.4.4

Cl **99** SC P **13** L **44** # 5

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

The editor's note refers to "IEEE P802.3bj and IEEE P802.3bk" which will both be superseded amendments by the time P802.3br is published.

SuggestedRemedy

Change:
"(e.g., IEEE P802.3bj and IEEE P802.3bk)" to:
"(e.g., IEEE P802.3bq and IEEE P802.3bw)"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* *P* **4** *L* **19** # 3

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

IEEE Std 802.3bk-2013 is expected to be superseded by the time that the P802.3br amendment is published, so remove the 802.3bk summary.
The summary of other amendments that are likely to be published before 802.3br (at least IEEE Std 802.3bw-201x) should be added here.
The summary of what this amendment includes should be filled out.

SuggestedRemedy

Remove the 802.3bk summary.
Add the summary of other amendments that are likely to be published before 802.3bq (at least IEEE Std 802.3bw-201x).
Change: "IEEE Std 802.3xxTM-201x" to "IEEE Std 802.3brTM-201x"
Replace "This amendment includes [complete]" with the completed summary of the P802.3br amendment.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* *P* **6** *L* **13** # 4

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

"IEEE P802.3br Task Force name" should be "IEEE P802.3br Interspersing Express Traffic"

SuggestedRemedy

Change ""IEEE P802.3br Task Force name" to "IEEE P802.3br Interspersing Express Traffic" (2 instances)

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* *P* **8** *L* **3** # 346

Zimmerman, George — CME Consulting, Inc.

Comment Type **ER** *Comment Status* **A**

"[to be provided]" is not a list of balloters, nor is it marked as an editor's note or something to be removed.
Similarly for the IEEE-SA board on page 9.

SuggestedRemedy

Provide list of balloting committee members, or mark "[to be provided]" as an editor's note to be removed prior to publication.
Similarly for IEEE-SA board on page 9.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. The IEEE-SA editor takes care of Sponsor ballot voters and the IEEE-SA board. No editor's note is needed.

Will add the Working Group list.

Cl **99** *SC* *P* **32** *L* # 384

Thompson, Geoff — GraCaSI S.A.

Comment Type **TR** *Comment Status* **R**

This clause seems to (a) not precisely specify which configuration of the existing MAC is used for the eMAC and the pMAC and also seems to be respecifying the upper MAC service interface.

SuggestedRemedy

Respecify things so that the accommodation (and the accompanying implied buffering) take place in the MAC MERGE and RECONCILIATION sub-layers.

Response *Response Status* **W**

REJECT. It specifies that the MACs are full duplex operating at 100 Mb/s or greater (first line in 99.1). It is using two copies of the upper MAC service interface, not respecifying it. This was indicated as a example of how this might be implemented even before the PAR was approved.

Cl **99** *SC* **88.4.5** *P* **37** *L* **26** # 55

Grow, Robert — RMG Consulting

Comment Type **ER** *Comment Status* **A**

Unparsable frame. Did some necessary text get deleted?

SuggestedRemedy

I have no clue what the sentence was attempting to say and therefore at am a loss on how to fix.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. A word, "indicates", is missing:
An SMD containing an SMD-C an mPacket that continues the data for a preempted frame.
Should be:
An SMD containing an SMD-C indicates an mPacket that continues the data for a preempted frame.

Cl **99** *SC* **99** *P* **0** *L* **0** # 92

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **R**

Where is Clause 45?????

SuggestedRemedy

Why there are no registers for Clause 45? Do we expect to have no need for MAC registers (counters) at all? Most of the counters from Clause 30 should be mapped into Clause 45 registers as well and these are missing right now ...

Response *Response Status* **C**

REJECT. Clause 45 only specifies PHY counters because it is the PHYS that have an MDIO interface. A MAC or chip containing a MAC

IEEE 802.3 doesn't specify how counters and other configuration and status above the MII and above the RS are accessed. It assumes that there is an implementation dependent ability to access this information. None of the MAC counters or objects have MDIO registers.

Therefore there are no Clause 45 registers.

Cl **99** *SC* **99** *P* **29** *L* **1** # 131

Laubach, Mark — Broadcom Corporation

Comment Type **T** *Comment Status* **R**

Personally, I would like to see some explicit statement in the text of this Clause that in some manner indicates support for TF Objective #13: "IET frames will be constructed such that they will not be recognized as valid MAC frames by a non-IET-capable device.". Others more skilled in those other clauses may not need this statement and the IET frame construction non-impact may be readily apparent to them. E.g., something like "IET frames are constructed so they are not recognized as valid MAC frames by the XX state machine(s) in {one or more cross-references}.

SuggestedRemedy

Up to the TF.

Response *Response Status* **C**

REJECT. The IET frames (i.e. the ones with a value that isn't the SFD) are discarded by a non-IET MAC because they start with something that isn't a valid SFD after the preamble.

We used to have a Goals clause and we received multiple inputs that we shouldn't so we don't have such statements.

Cl **99** *SC* **99** *P* **29** *L* **1** # 18

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

Editing instruction says: "Insert new clauses and corresponding annexes as follows:" but there are no new annexes.

SuggestedRemedy

Change to "Insert new clause as follows:"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99** *P* **29** *L* **1** # 116

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **A**

There is only one clause to insert.
There is no annex to insert.

SuggestedRemedy

Change "new clauses and corresponding annexes" with "a new clause".

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99** *P* **4** *L* **1** # 68

Hajduczenia, Marek — Bright House Network

Comment Type **ER** *Comment Status* **A**

Description of 802.3 status is incomplete.

SuggestedRemedy

Please add latest updates to 802.3 family of standards: bm. Also, given the status of 802.3bx, this draft should be aligned with 802.3bx D3.0 given that by the time this draft goes to Sponsor ballot, P802.3bx will be a new base 802.3 standard.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #334 regarding 802.3 revision and #3 on updating front matter.

Cl **99** *SC* **99** *P* **45** *L* **38** # 25

Anslow, Pete — Ciena

Comment Type **TR** *Comment Status* **A** *Discuss*

There are several Editor's notes in Clause 99 discussing issues with the clause.
All of these issues should have been resolved prior to WG ballot and will certainly have to be resolved prior to the draft being ready for Sponsor Ballot.

SuggestedRemedy

Resolve all of the issues and remove the editor's notes.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. There are 2 editor's notes that relate to issues. One documents a small issue in 30.14.1.2 that the editor noticed during draft preparation. There are comments that resolve this issue so this note should be gone in the next draft.

The other requests review of delay constraints (though the statement that it is a first cut is old and should have been removed - there has been some review and update during the task force review). This note will be removed in the next draft.

The other editor's notes are not on technical issues.
One highlights changes to the Containment diagram for voters because that was requested since the text change marking isn't in figures. Remove in the next draft.

Another provides an explanation of the value used for HRT. Remove in the next draft.

Cl **99** *SC* **99** *P* **6** *L* **1** # 143

Law, David — HP

Comment Type **E** *Comment Status* **A**

Please include the working group balloter list supplied in the file <IEEE_P802d3br_WG_names.pdf>.

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.1** *P* **29** *L* **1** # 153

Law, David — HP

Comment Type **T** *Comment Status* **A**

Since the MMSI is not a sublayer, and since the TSSI is also shown in the figure but not mentioned here, suggest that only the MAC Merge sublayer is mentioned.

SuggestedRemedy

Suggest the text '... the relationship of MAC Merge and the MMSI to the other sublayers ...' be changed to read '... the relationship of MAC Merge sublayer to the other sublayers ...'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #165

Cl **99** *SC* **99.1** *P* **29** *L* **15** # 96

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **A**

"The MMSI enables beginning preemption of a frame slightly before express traffic is expected to minimize the latency for express traffic. "

SuggestedRemedy

This would imply some secret knowledge of when the express traffic will begin in the future, even before it arrives at the queue. I think this puts the effect before the cause. I do not know how you can guarantee that witout delaying express traffic in a queue. Clarification on how this is acheieved is needed, perhaps not within the text of introduction but where individual primitives are defined.
The example "For example, when the MAC Client supports scheduled traffic as defined in IEEE 802.1Q3, transmission of preemptable frames can be held before express traffic is scheduled to be transmitted." does not make much sense, since information about queuing is not available below MAC, where MAC Merge is instantiated.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. There is no secret knowledge implied.
Remove "slightly" as it is unquantified.

Cl **99** *SC* **99.1** *P* **29** *L* **19** # 294

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

....transmission of preemptable frames can be held before express traffic is scheduled to be transmitted.

We still have a mixture of the terms "hold" and "suspend" for the same meaning.

We should use always the same term.

In the actual draft the term "hold" (>5 times) is more often used than "suspend" (2 times)

SuggestedRemedy

Make the draft consistent

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Use hold

Cl **99** *SC* **99.1** *P* **29** *L* **21** # 74

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **A**

Sentence makes little sense: "When preemption is active, MAC Merge allows frames provided over an express MAC service interface (express traffic) to the eMAC to interrupt transmission of a preemptable frame being transmitted by the pMAC." - it seems that MAC Merge in located above MAC

SuggestedRemedy

Change to read: "When preemption is active, the MAC Merge sublayer allows frames provided over the express MAC service interface (express traffic) to interrupt transmission of frame provided over the preemptable MAC service interface (preemptable traffic). Preemption is enabled only when it has been determined that the link partner supports the preemption function." and avoid the discussion on what and where is tramsmitted. It is unnecessary.
Strike line 39, page 29.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.1** *P* **29** *L* **22** # 154

Law, David — HP

Comment Type **T** *Comment Status* **A**

The text states that the MAC merge allows '... frames provided over an express MAC service interface (express traffic) to the eMAC to interrupt transmission ...'. Is it correct that express frames are '... to the eMAC ...', aren't the from the eMAC?

SuggestedRemedy

Suggest that '... to the eMAC to ...' be changed to read '... by the eMAC to ...'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #74. The frames are provided by the MAC Client to the eMAC. This is describing the overall service provided to the MAC Client by the combination of the two MACs and MAC Merge. The text adopted in #74 does this.

Cl **99** *SC* **99.1** *P* **29** *L* **23** # 211

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

According to the style manual: "The use of the word will is deprecated and shall not be used when stating mandatory requirements; will is only used in statements of fact."

Here "will" should probably be changed to "shall".

Clause 99 contains many instances of "will", they should be changed per case.

SuggestedRemedy

Go over clause 99 and change text containing "will" as appropriate.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The editor has checked all instances of "will". It is occurring in descriptive text - statements of fact about what something implementing the requirements in this Clause will do. Generally, behaviors that are mandatory because of shall statements requiring the state machines.

There are some instances where "will" could be removed. E.g. "Asserting hold over the MSSI will also interrupt" could be changed to "Asserting hold over the MSSI also interrupts". That will be done where possible.

Cl **99** *SC* **99.1** *P* **29** *L* **23** # 139

Law, David HP

Comment Type **E** *Comment Status* **A**

I think that reference to the 'MSSI' here and on the following line are typos, and should be to the MAC Merge Service Interface (MMSI).

SuggestedRemedy

Change '... the MSSI ...' to read '... the MMSI ...' here and on the following line.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.1** *P* **29** *L* **23** # 75

Hajduczenia, Marek Bright House Network

Comment Type **T** *Comment Status* **A**

Clarify the use of HOLD/RELEASE parameter in MMSI primitive: "Asserting hold over the MSSI will also interrupt transmission of a preemptable frame being transmitted by the pMAC. Once transmission of the express traffic has finished and any hold from the MSSI has been released, transmission of the preemptable frame is resumed."

SuggestedRemedy

Change to read: "When HOLD is asserted on the MM_CTL.request primitive, the MAC Merge sublayer interrupts any ongoing transmission of preemptable traffic and enables the transmission of express traffic. When RELEASE is asserted on the MM_CTL.request primitive, transmission of express traffic is completed and transmission of preemptable traffic is resumed."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. When HOLD is asserted by a MM_CTL.request primitive, the MAC Merge sublayer suspends any ongoing transmission of preemptable traffic and enables the transmission of express traffic. When RELEASE is asserted by a MM_CTL.request primitive, transmission of express traffic is completed and transmission of preemptable traffic is resumed.

Also replace "interrupt" with "suspend" when used to describe what HOLD does.

Cl **99** *SC* **99.1** *P* **29** *L* **27** # 76

Hajduczenia, Marek Bright House Network

Comment Type **T** *Comment Status* **A**

Sentence makes little sense: "When preemption is not active, transmission of preemptable frames will not be interrupted. If the eMAC is providing an express frame and MAC Merge is idle (i.e. at least an interpacket gap has elapsed since ending transmission of any prior frame), MAC Merge will begin transmission of the express frame. If the eMAC is not providing a frame, transmission of preemptable frames is released and the pMAC is providing a preemptable frame and MAC Merge is idle, MAC Merge will transmit the preemptable frame." - language can be simplified a lot and avoid the use of "will" that is not allowed.

SuggestedRemedy

Change to read: "When preemption is not active, the MAC Merge sublayer does not interrupt transmission of preemptable traffic even if express traffic becomes available. If the MAC Merge sublayer is idle (at least an interpacket gap has elapsed since the end of transmission of a prior frame) and an express frame becomes available, the MAC Merge sublayer transmits the express frame. Otherwise, the MAC Merge sublayer transmits any presented preemptable frames."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Use:
When preemption is not active, the MAC Merge sublayer does not prempt transmission of preemptable packet even if express traffic becomes available. If the MAC Merge sublayer is idle (i.e. at least an interpacket gap has elapsed since the end of transmission of a prior frame) and an express frame becomes available, the MAC Merge sublayer transmits the express frame. Otherwise, the MAC Merge sublayer transmits any presented preemptable frames.

Cl **99** *SC* **99.1** *P* **29** *L* **28** # 140

Law, David HP

Comment Type **E** *Comment Status* **A**

Suggest that 'transmitting' should be used rather that 'providing' here and twice on line 30.

SuggestedRemedy

Suggest the text '... is providing an ...' is changed to read '... is transmitting an ...' here and twice on line 30.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.1** *P* **29** *L* **31** # 202

Ran, Adee Intel

Comment Type **E** *Comment Status* **R**

Long conditional statement - it isn't immediately clear where the condition ends.

SuggestedRemedy

Insert "then" before "MAC Merge will transmit".

Response *Response Status* **C**

REJECT.

Cl **99** *SC* **99.1** *P* **29** *L* **39** # 295

Tretter, Albert Siemens

Comment Type **E** *Comment Status* **A**

"Preemption is only enabled after it has been determined that the link partner supports it."

=> As preemption at Rx side is always enabled we should add the info that preemption has to be enabled at Tx side

SuggestedRemedy

Add "at TX side"

Proposal
"Preemption at Tx side is only enabled after it has been determined that the link partner supports it."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. "Preemption capability is only enabled after…"
The receive does reassembly, not preemption.

Cl **99** *SC* **99.1** *P* **29** *L* **39** # 203

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

How is it determined that the link partner supports preemption?

SuggestedRemedy

Add a reference to 79.3(.7).

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. 99.4.2

Cl **99** *SC* **99.1** *P* **29** *L* **9** # 201

Ran, Adee Intel

Comment Type **E** *Comment Status* **R**

Repetitive text in parentheses. It doesn't seem necessary to have any further definitinon here.

SuggestedRemedy

Delete "(MAC Merge)".

Response *Response Status* **C**

REJECT. It is defining MAC Merge as a short form for MAC Merge sublayer.

Cl **99** *SC* **99.1** *P* **30** *L* **6** # 19

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**

Figure 99-1 needs cleaning up

SuggestedRemedy

Remove the spurious dotted line that crosses the end of "MAC CLIENT supporting preemption".
Shrink the curly bracket labelled "PHY" to start at the top of the PCS layer.

Response *Response Status* **C**

ACCEPT. See #165

Cl **99** *SC* **99.1.1** *P* **30** *L* **1** # 134

Law, David HP

Comment Type **E** *Comment Status* **A**

Centre align the words 'LAN' 'LAYERS' and 'HIGHER LAYERS'. The text 'HIGHER LAYERS' should also be centred, moved nearer to the top of the MAC Client box, and there should be dotted lines at each side aligned to the edge of the MAC Client box, the spurious dotted line attached the end of the word preemption (line 6) should be deleted.

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.1.1** *P* **30** *L* **1** # 73

Hajduczenia, Marek — Bright House Network

Comment Type **ER** *Comment Status* **A**

Several minor editorial issues with Figure 99-1:
- some extra vertical line in box "MAC CLIENT supporting preemption" on the right half inch from the right edge
- "TimeSync Client" should be centered vertically and horizontally in the box
- "PHY" seems to span part of xMII - it should only cover PCS/PMA/PMD
- line designating Physical layer seems to catch also part of MDI, which is incorrect
- definition of pMAC and eMAC should be done under the figure (like xMII, MDI, and others) and not expanded in the drawing itself

SuggestedRemedy

Fix the issues listed in the comment.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
See #165

Cl **99** *SC* **99.1.1** *P* **30** *L* **1** # 165

Law, David — HP

Comment Type **TR** *Comment Status* **A**

This figure is a mixture of the layer diagram that we usually provide, along with some interlayer service interface information. I would prefer that [1] we limit this particular diagram to show, as usual, just the location of the sublayer defined by the Clause in relation to the OSI seven layer model and the IEEE 802.3 Ethernet Layers and [2] provide a more detailed interlayer service interfaces diagram similar to IEEE Std 802.3-2012 Figure 78-1 and 90-1.

SuggestedRemedy

Please replace the current Figure 99-1 layer model with the figure found on page 1 of IEEE_P802d3br_figures_DL.pdf and insert a new Figure 99-2 to provide a detailed interlayer service interfaces diagram using the figure found on page 2 of IEEE_P802d3br_figures_DL.pdf. I have provided this file in both pdf for posting along with the comment database, and in FrameMaker to ease incorporation should this comment be accepted.

Please not I've included a number of comments on the existing figure if this comment isn't accepted.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Use the figures the commenter provided. Depending on the resolution of comments on Clause 90, the Time Sync Service interface on the second figure may need to be modified to match the changes.
Add to the text that references the figure that one of the instantiations of the MACs is the eMAC and one is the pMAC.

Cl **99** *SC* **99.1.1** *P* **30** *L* **1** # 135

Law, David — HP

Comment Type **E** *Comment Status* **A**

I don't think the text 'PCS, PMA and PMD represent an example of PHY sublayers' is necessary as we don't normally include such text.

SuggestedRemedy

Remove text as suggested.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.1.1** *P* **30** *L* **10** # 150

Law, David — HP

Comment Type **T** *Comment Status* **A**

I believe that the MAC CLIENT is part of the Data Link layer (see IEEE Std 802.3-2012 Figure 1-1).

SuggestedRemedy

Move the dotted line from the top of the DATA LINK layer to go to the top of the MAC CLIENT.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #165

Cl **99** *SC* **99.1.1** *P* **30** *L* **12** # 136

Law, David — HP

Comment Type **E** *Comment Status* **R**

Expand eMAC and pMAC to be 'express MEDIA ACCESS CONTROL' and 'preemptable MEDIA ACCESS CONTROL' in the abbreviation expansion list below the figure.

SuggestedRemedy

Change 'eMAC (express MEDIA ACCESS CONTROL)' to read 'eMAC' and 'pMAC (preemptable MEDIA ACCESS CONTROL)' to read pMAC. Add 'eMAC = EXPRESS MEDIA ACCESS CONTROL' and 'pMAC = PREEMPTABLE MEDIA ACCESS CONTROL' to the abbreviation expansion list below the figure.

Response *Response Status* **C**

REJECT. The figure will be replaced. See #165. However, since all the diagams put the expansion of above the PHY acroymns in the boxes rather than below, the expansion will be in the boxes.

Cl **99** *SC* **99.1.1** *P* **30** *L* **16** # 151

Law, David HP

Comment Type **T** *Comment Status* **A**

I don't believe we use the 'blocks' at the top and the bottom of the xMII (see IEEE Std 802.3-2012 Figure 1-1) as some forms of xMII don't support physical instantiations.

SuggestedRemedy

Removed the 'blocks' at the top and the bottom of the xMII (line 16 and 18).

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #165

Cl **99** *SC* **99.1.1** *P* **30** *L* **17** # 137

Law, David HP

Comment Type **E** *Comment Status* **A**

I believe that the PHY consists of the PCS, PMA and PMD, but does not include any of the xMII (see IEEE Std 802.3-2012 Figure 1-1).

SuggestedRemedy

Move the curly bracket marked PHY to only extend to the top of the PCS.

Response *Response Status* **C**

ACCEPT. See #165

Cl **99** *SC* **99.1.1** *P* **30** *L* **22** # 152

Law, David HP

Comment Type **T** *Comment Status* **A**

I believe that the MDI is part of the PHYSICAL layer (see IEEE Std 802.3-2012 Figure 1-1).

SuggestedRemedy

Move the dotted line from the bottom of the PHYSICAL layer to go to the bottom of the MDI.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #165

Cl **99** *SC* **99.1.1** *P* **30** *L* **30** # 138

Law, David HP

Comment Type **E** *Comment Status* **A**

I'd prefer that we use the note in respect to xMII found in Figure 1-1 since it states that the term os for 100Mb/s and above.

SuggestedRemedy

Change the note to read 'NOTE-In this figure, the xMII is used as a generic term for the Media Independent Interfaces for implementations of 100 Mb/s and above. For example: for 100 Mb/s implementations this interface is called MII; for 1 Gb/s implementations it is called GMII; for 10 Gb/s implementations it is called XGMII; etc.'.

Response *Response Status* **C**

ACCEPT. See #165

Cl **99** *SC* **99.1.1** *P* **30** *L* **8** # 317

Tretter, Albert Siemens

Comment Type **T** *Comment Status* **A**

Figure 99–1: MMSI Interface (optional)

In clause 9.2.2 this interface is defined as mandatory => "MACMerge shall support the MM_CTL.request primitive described in this subclause."

Here the MMSI is definied as optional

SuggestedRemedy

Specification should be consistent.

Therefore the MMSI Interface in this figure should also be mandatory.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.1.2** *P* **31** *L* **22** # 77

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **R**

Based on the following description, it seems that "Verification" function is optional and may be not implemented. If that is the case, the box should be marked in dotted line, like functions belonging to EEE

SuggestedRemedy

Change the designatio of "Verification" box if it is indeed meant to be optional.

Response *Response Status* **C**

REJECT. Initiating verification can be disabled, but the function is mandatory. Even when verification is disabled, the Verification function is required to respond to receiving a Verify by sending a Response.

Cl **99** *SC* **99.2** *P* **31** *L* **44** # 78

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **A**

Odd restatement "This subclause specifies the services provided by MAC Merge to a MAC Client supporting preemption. The MAC Client may be a MAC Client supporting preemption." - the second sentence does not add anything new

SuggestedRemedy

Change to read: "This subclause specifies the services provided by the MAC Merge subclayer to any MAC Clients, including MAC Clients supporting preemption."

Response *Response Status* **C**

ACCEPT. This subclause specifies the services provided on the MMSI by the MAC Merge subclayer to a MAC Client.

Cl **99** *SC* **99.2** *P* **31** *L* **44** # 204

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

"The MAC Client may be a MAC Client supporting preemption." - this sentence seems badly phrased, and is implicit from the previous sentence.

SuggestedRemedy

Delete "The MAC Client may be a MAC Client supporting preemption."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.1** *P* **31** *L* **47** # 79

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **A**

The subclause title says "Responsibilities of MAC Client using MAC Merge" implying that MAC Client has some requirements, but the text then says MAC Client can (optionally) do something. It is inconsistent.

SuggestedRemedy

Change title of 99.2.1 to "Functions of MMSI" and change description in this subclause to read: "The MMSI primitive is used to control the MAC Merge sublayer to either transmit express traffic (hold_req=HOLD) or preemptable traffic (hold_req=RELEASE)."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The subclause doesn't say anything so it will be deleted.

Cl **99** *SC* **99.2.1** *P* **31** *L* **49** # 296

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

"...to request to a hold or release on ...."

=> should be changed to

"...to request a hold or release on ...."

SuggestedRemedy

please correct

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.2** *P* **32** *L* **11** # 205

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

Missing space between "MAC" and "Merge".

SuggestedRemedy

Add space.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.2** *P* **32** *L* **11** # 238

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

"MACMerge" should be "MAC Merge"

SuggestedRemedy

Change "MACMerge" to "MAC Merge"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.2** *P* **32** *L* **11** # 318

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

MACMerge shall support the MM_CTL.request primitive described in this subclause.

In contrast to figure 99–1 here the "MM_CTL.request primitive" is mandatory

SuggestedRemedy

Specification should be consistent.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The new figure will be consistent with the text.

Cl **99** *SC* **99.2.2** *P* **32** *L* **11** # 80

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **A**

"MACMerge shall support the MM_CTL.request primitive described in this subclause." - MACMerge ???

SuggestedRemedy

Change to "The MAC Merge sublayer shall support the MM_CTL.request primitive defined in 99.2.3." - "this subclause" implies 99.2.2. and that is not where the primitive is defined in reality.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.2** *P* **32** *L* **3** # 209

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

Phrasing can be improved and made more consistent with service interface definitions in most of the other clauses.

SuggestedRemedy

Change "The following" to "This subclause".

Change "These services" to "The service interface".

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.2** *P* **32** *L* **5** # 297

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

"...model used in this service specification is identical to that used in 1.2.2."

=> The references to "1.2.2" is not within the draft
=> As mentioned at page 13: Cross references that refer to clauses, tables, equations, or figures not covered by this amendment are highlighted in green.

=> But to which standard refers this reference?

SuggestedRemedy

Add the relevant standard

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. 1.2.2 of IEEE 802.3 is Service specification method and notation and contains a model for service interfaces.

It is green, but a very dark green. Editor to check that the right Font is used.

Cl **99** *SC* **99.2.2** *P* **32** *L* **7** # 117

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **A**

Only one primitive is defined.

SuggestedRemedy

Change "primitives are" with "primitive is".

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1** *P* **32** *L* **17** # 53

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **A**

Bad grammar, missing “of”?

SuggestedRemedy

Correct.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1** *P* **32** *L* **17** # 206

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

Missing "of".

SuggestedRemedy

Add "of" after "transfer".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Corrected in another comment.

Cl **99** *SC* **99.2.3.1.1** *P* **32** *L* **26** # 82

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **A**

The following does not read right, in terms of grammar:

The value HOLD suspends transmission from the pMAC by:
a) preempt any preemptable frame in progress if preemption is active and
b) not start transmission of frames from the pMAC
regardless of whether the eMAC has a frame to transmit. The value RELEASE allows transmission by the pMAC when the eMAC does not have a frame to transmit.

SuggestedRemedy

Change to read

The value of hold_req=HOLD causes the MAC Merge sublayer to suspend transmission of preemptable traffic by:
a) preempting any preemptable frame being transmitted, if the preemption function is enabled, and
b) withholding from transmitting any preemptable frames
regardless of whether eMAC has traffic to transmit. The value of hold_req=RELEASE causes the MAC Merge sublayer to terminate any preemption and allows transmission of preemptable traffic.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1.1** *P* **32** *L* **29** # 39

Dwelley, David — Linear Technology

Comment Type **E** *Comment Status* **A**

Bad grammar: "The value HOLD suspends transmission from the pMAC by:
a) preempt any preemptable frame in progress if preemption is active and
b) not start transmission of frames from the pMAC"

SuggestedRemedy

Change to:
"a) preempting..."
"b) not starting..."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1.1** *P* **32** *L* **29** # 249

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

the a) and b) should be in the present progressive tense (to match the beginning of the sentence "The value HOLD suspends transmission from the pMAC by"

SuggestedRemedy

Change
"a) preempt any preemptable frame in progress if preemption is active and
b) not start transmission of frames from the pMAC"

To
"a) preempting any preemptable frame in progress if preemption is active and
b) not starting transmission of frames from the pMAC"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1.1** *P* **32** *L* **29** # 207

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

List items are syntactically after the word "by".

The sentence seems to continue after the list, in a new paragraph, and description of the effect of RELEASE (a different topic) immediately follows. This is unusual and difficult to follow.

The list can be changed into a normal paragraph and RELEASE can be separated for clarity.

SuggestedRemedy

Change "preempt" to "preempting" and "start" to "starting".

Change the list into a regular statement: "... by preempting ... and not starting ... , regardless of ..."

Insert new line before "The value RELEASE".

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1.2** *P* **32** *L* **35** # 208

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

This part of the service interface is almost always titled "When generated" - clause 90 is the only exception.

SuggestedRemedy

Rename to "When generated".

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1.3** *P* **32** *L* **39** # 97

Hajduczenia, Marek Bright House Network

Comment Type **TR** *Comment Status* **A**

Content in 99.2.3.1.3 is a repetion of content already included in 99.2.3.1.1, just a restatement

SuggestedRemedy

Consider either removing 99.2.3.1.3 altogether, or moving detailed descriotion of what happens for each value from 99.2.3.1.1 to 99.2.3.1.3.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Some repetition is built into the format for the primitive descriptions. The repetition will be reduced by moving details to 99.2.3.1.3.

In 99.2.3.1.1, delete:
"by:
a) preempt any preemptable frame in progress if preemption is active and
b) not start transmission of frames from the pMAC
regardless of whether the eMAC has a frame to transmit."

In the first line of 99.2.3.1.3, after preempt, insert "regardless of whether the eMAC has a frame to transmit"

Cl **99** *SC* **99.2.3.1.3** *P* **32** *L* **45** # 234

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

In the line "minimum fragment size requirements are met," the comma should be a semicolon as the "inner" serier contains a comma.

SuggestedRemedy

change "minimum fragment size requirements are met,"
To "minimum fragment size requirements are met;"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1.3** *P* **32** *L* **47** # 40

Dwelley, David Linear Technology

Comment Type **E** *Comment Status* **A**

Two periods

SuggestedRemedy

Delete one period

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1.3** *P* **32** *L* **47** # 210

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

Duplicate period at end of sentence ("pMAC..")

SuggestedRemedy

Remove one period.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.2.3.1.3** *P* **32** *L* **47** # 250

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

two periods at the end of the sentence.

SuggestedRemedy

Change ".." to "."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3** *P* **33** *L* **3** # 83

Hajduczenia, Marek Bright House Network

Comment Type **T** *Comment Status* **A**

"When preemption capability is active, ... " - previously we spoke of "preemption function" or "preemption"

SuggestedRemedy

Change to "When the preemption function is enabled, "

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
The sentence is correct as it stands.
We use "preemption" for the act of preempting something. "Preemption capability" is the ability to preempt.

"Preemption function" shouldn't be used. Functions are the things in the funtional block diagram and none of them are called preemption.
The editor will search for and replace any instances of "preemption function"

Preemption can be "enabled" without being "active". To be "active", it must be enabled and either verification succeeded or verification diabled.

Cl **99** *SC* **99.3** *P* **33** *L* **4** # 84

Hajduczenia, Marek Bright House Network

Comment Type **T** *Comment Status* **R**

mPacket used for the first time and without any explanation of what it is ...

SuggestedRemedy

Change "mPacket" to "MAC Merge Packet (mPacket)"

Response *Response Status* **C**

REJECT. MAC Merge Packet (mPacket) appears in the heading of the subclause.

Cl **99** *SC* **99.3** *P* **33** *L* **5** # 63

Hajduczenia, Marek — Bright House Network

Comment Type **E** *Comment Status* **A**

Unnecessary empty lines 5-7 and line 30

SuggestedRemedy

Per comment

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.1** *P* **33** *L* **29** # 85

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **A**

Figure 99–3 should be divided into two: one showing mPacket containing an express frame or an initial fragment of a frame, and one showing mPacket containing a non-initial fragment of a frame

SuggestedRemedy

Divide Figure 99-3 into two: new Figure 99-3 to show mPacket containing an express frame or an initial fragment of a frame (new caption: "mPacket with an express frame or an initial frame fragment") and new Figure 99-4 to show mPacket containing a non-initial fragment of a frame (new caption: "mPacket with a non-initial fragment of a frame").

Change text in line 10 to read: "Figure 99-3 shows the format of an mPacket containing a complete express frame or an initial frame fragment. Figure 99-4 shows the format of an mPacket containing a non-initial frame fragment."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Make a) and b) in the same figure.

Cl **99** *SC* **99.3.1** *P* **33** *L* **32** # 251

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

"The format of an mPacket depends on data it carries." should be "The format of an mPacket depends on the data it carries."

SuggestedRemedy

Change "The format of an mPacket depends on data it carries."
to "The format of an mPacket depends on the data it carries."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.1** *P* **33** *L* **33** # 123

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **T** *Comment Status* **A**

It is not clear how it is guaranteed that an mPacket carrying an express frame has the same format as the express frame.

SuggestedRemedy

Insert the following phrase after "the express frame" in page 33, line 33:

", because SMD-E (i.e. SMD value for an express frame) is same as the SFD value".

Split the left figure of Figure 99-3 to two figures, one for mPacket containing an express frame and another for mPacket containing an initial fragment of a frame. Change "SMD" of the mPacket containing an express frame with "SMD-E".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Will add the text, but not add the extra figure.

Cl **99** *SC* **99.3.1** *P* **33** *L* **35** # 212

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

Missing cross reference top table 99-1 (twice in this paragraph).

SuggestedRemedy

Add cross references.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.1** *P* **33** *L* **35** # 252

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

the reference to Table 99-1 is text instead of being a link

SuggestedRemedy

In both 35 and 37, change the texgt "Table 99-1" to a link to Table 99-1.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.1** *P* **33** *L* **36** # 258

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **A**

The sentence "An mPacket carrying any of the noninitial fragments of a preempted preemptable frame (transmitted by pMAC) has an SMD value, per Table 99-1, and includes an additional fragment counter octet (FRAG_COUNT) following the SMD." is correct, but would be clearer if instead of just saying "has an SMD value" the spec states "has a non-initial fragment SMD value"

SuggestedRemedy

Change "has an SMD value" to "has a non-initial fragment SMD value"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. "has a continuation fragment SMD value"
Also change other instances of non-initial to continuation.

Cl **99** *SC* **99.3.2** *P* **33** *L* **41** # 86

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **A**

There are no requirements for preamble content. Also, the text is very confusing - we start with a definition of a single octet and then go into complex definition of the premable structure. Text should be clarified.

SuggestedRemedy

Change the text in 99.3.2 to read:

The preamble in the mPacket shown in Figure 99-3 shall contain 7 preamble octets. The preamble in the mPacket shown in Figure 99-4 shall contain 6 preamble octets. Each preamble octet contains the value of 0x55 (binary 10101010).

Add entries into PICS.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The requirement comes from the state machine for the continuation fragment and from the MAC Clause for the express frame and initial mPacket (because the State machine just passes along the preamble octets it gets) so we don't need shalls here.

The preamble in the mPacket shown in Figure 99-3a contains 7 preamble octets. The preamble in the mPacket shown in Figure 99-4b contains 6 preamble octets. Each preamble octet contains the value of 0x55 (binary 10101010).

Cl **99** *SC* **99.3.2** *P* **33** *L* **41** # 213

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

According to the style manual: "In general text, isolated numbers less than 10 should be spelled out".

SuggestedRemedy

Change "7" and "6" to "seven" and "six" respectively.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.3** *P* **33** *L* **45** # 87

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **R**

No requirements for SMD values.

SuggestedRemedy

Change "All valid SMD values are defined inTable 99–1." to read "All valid SMD values shall be per Table 99–1."

Add new entry in PICS.

Response *Response Status* **C**

REJECT. The state machine has the requirement.

Cl **99** *SC* **99.3.3** *P* **33** *L* **49** # 343

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

Missing space "inTable 99-1"

SuggestedRemedy

insert space between "in" and "Table 99-1"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.3** *P* **33** *L* **49** # 239

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

"inTable 99–1" should be "in Table 99-1"

SuggestedRemedy

change "inTable 99–1" to "in Table 99–1"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.3** *P* **33** *L* **52** # 298

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

... frame also indicates the frame number.

There ist a mixture of the terms "frame number" and "frame count" for as I assume, the same meaning.

In Table 99–1—SMD values shows the relation between the SMD values and the frame count.

Maybe due to a search and replace action that the term "frame count" was unintentionally changed to "frame number"

SuggestedRemedy

Please check

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Use frame count

Cl **99** *SC* **99.3.3** *P* **33** *L* **52** # 124

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **T** *Comment Status* **A**

It seems "frame number" is also called as "frame count".

SuggestedRemedy

Change "frame number" with "frame count" in the following locations:

Page 33, line 52 (2 locations)
Page 33, line 54
Page 37, line 31
Page 41, line 39

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.3** *P* **34** *L* **3** # 64

Hajduczenia, Marek — Bright House Network

Comment Type **E** *Comment Status* **A**

".." at the end of the sentence

SuggestedRemedy

Change ".." to "."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.3** *P* **34** *L* **3** # 41

Dwelley, David — Linear Technology

Comment Type **E** *Comment Status* **A**

Two periods

SuggestedRemedy

Delete one period. Is this some sort of secret code?

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.3** *P* **34** *L* **3** # 240

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

Two periods instead of 1.

SuggestedRemedy

Change ".." to "."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.3** *P* **36** *L* **49** # 385

Thompson, Geoff — GraCaSI S.A.

Comment Type **TR** *Comment Status* **R**

I am opposed to the extent to which the SMD breaks the architecture of the long-standing Ethernet frame format and architecture by loading data content into the start frame delimiter.

SuggestedRemedy

Have only one new value of start frame delimiter whose job is to signal that the frame is a pre-temptable frame and handle all of the data for managing broken frames within the data field. I would strongly prefer that all such management data appear behind an EtherType field so things are consistent with other varieties of VLAN frames.

Response *Response Status* **W**

REJECT. Doing what the commenter suggests (using an Ethertype) would impact significantly impact the overhead for IET and decrease throughput. Currently, IET provides no change in link throughput for unpreempted frames and minimzes the impact for preempted frames.

Also, if this information was put into the data field fo a frame, that would change the CRC. There is no demonstration of how to do that without weakening the MTTFPA for the resulting frames. It would also require changes to the MAC as it is the MAC that handles frames. The project objectives do not allow that.

The current draft uphods the architecture by not mixing below the MAC content with above the MAC content.

Cl **99** *SC* **99.3.4** *P* **34** *L* **35** # 65

Hajduczenia, Marek — Bright House Network

Comment Type **E** *Comment Status* **A**

Figure 99-3 uses "FRAG_COUNT" but it is used inconsistently in Clause 99 as "frag_count", "Frag_count", or "FRAG_COUNT"

SuggestedRemedy

Change "frag_count" to "FRAG_COUNT" to be consistent with Figure 99-3.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Lower case except where other conventions such figure labels being upper case apply.

Cl **99** *SC* **99.3.4** *P* **34** *L* **40** # 66

Hajduczenia, Marek — Bright House Network

Comment Type **E** *Comment Status* **A**

Two sentences glued together without any sense: "The frag_count is set to zero at the start of each preemptable frame, and mPackets with SMD-S do not contain the frag_count field."

SuggestedRemedy

Change to "The frag_count is set to zero at the start of each preemptable frame. mPackets with SMD-S do not contain the frag_count field."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.4** *P* **34** *L* **43** # 88

Hajduczenia, Marek — Bright House Network

Comment Type **T** *Comment Status* **A**

No requirements for FRAG_COUNT

SuggestedRemedy

Change "The valid values of frag_count values are shown in Table 99–2." to "The valid values of FRAG_COUNT field shall be per Table 99-2."

Add a new entry in PICS.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The requirement is covered by the state machine.

However frag_count has inconsistant capitalization. Make it lower case everywhere except Figure 99-3 where the convention in that type of figure is to put all the labels in upper case or where it is a table heading which has an initial cap.

Cl **99** *SC* **99.3.4** *P* **35** *L* **10** # 31

Beaudoin, Denis — Texas Instruments

Comment Type **T** *Comment Status* **A**

The Frag_count encoded value for fragment 3 is defined as 0x83. Shouldn't this be 0xb3 (like SMD_S3)? All the other frac_counts match the SMD_S? values.

SuggestedRemedy

Change Frag_count 3 in the table to be B3

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.5** *P* **35** *L* **11** # 319

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

Table 99–2—Frag_count values

I think that the Encoding (0x83) for the Frag_count "3" should be 0xB3

SuggestedRemedy

Please double-check

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.3.6** *P* **35** *L* **14** # 100

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **A**

No requirements for CRC are present. Also, no "mCRC" has been defined before ...

SuggestedRemedy

Change: "For the mPacket containing the final fragment of a frame, the CRC field shall carry the FCS of the original frame (last 4 octets of the frame).
For other mPackets, the CRC fields shall carry the value calculated over the DATA field of the mPacket and then XORed with 0x0000 FFFF. The computation corresponds to performing steps a) through d) in 3.2.9."

Response *Response Status* **C**

ACCEPT. The state machines controls when the MCRC is inserted and that one isn't inserted in the final mPacket. Since the state machine sends all bits provided by the MAC, it sends the FCS. No additional shalls are called for to accomplish that.

Change the paragraph to put a shall for the computation method:
For other mPackets, it contains an mCRC value. The mCRC shall be calculated on the data octets of the frame from the first octet
of the frame to the last octet transmitted in that mPacket by:
performing steps a) through d) in 3.2.9 and then
XORing the calculated 32 bits with 0x0000 FFFF.

Cl **99** *SC* **99.3.6** *P* **35** *L* **16** # 98

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **A** *Discuss*

It is not clear what CRC covers: The CRC field contains a cyclic redundancy check (CRC) for mPacket data and an indication of whether this is the final mPacket of a frame. - it seems it is calculated only on DATA field.

SuggestedRemedy

Clarify the coverage of CRC field in mPacket - it would be also suggested NOT to call DATA field "DATA" since it is confusing in context of 3.1.1, where DATA is used to indicate just the MAC Client Data.
Suggest to change "DATA" in Clause 99 to "mPacket Data" to distinguish it from regular MAC Client Data field defined in 3.1.1.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Change DATA to mData. See #100

Cl **99** *SC* **99.3.6** *P* **35** *L* **19** # 99

Hajduczenia, Marek — Bright House Network

Comment Type **TR** *Comment Status* **R**

What is "the final mPacket"? Likely, "the mPacket containing the final fragment of a frame"

SuggestedRemedy

Per comment - this term is used without definition ...

Response *Response Status* **W**

REJECT. It doesn't define a term. It is a phrase which clearly says the final mPacket of the frame, i.e. the last mPacket - the frame is over. Since the frame is sent in order, that is as clear as the longer phrase.

Cl **99** *SC* **99.3.6** *P* **35** *L* **19** # 265

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **A**

Verify & respond frames should always contain an mCRC. The CRC section makes this ambiguous in the statement "For the final mPacket of a frame, the CRC field contains the last 4 octets of the MAC frame (the FCS field)." as the verify & respond packets could be considered final mPackets.

SuggestedRemedy

Change
"For the final mPacket of a frame, the CRC field contains the last 4 octets of the MAC frame (the FCS field).

For other mPackets, it contains an mCRC value calculated on the data octets of the frame from the first octet of the frame to the last octet transmitted in that mPacket. The computation corresponds to performing steps a) through d) in 3.2.9. The mCRC is the XOR of the calculated 32 bits and 0x0000 FFFF."

To

"For non-final mPackets of a frame as well as mPackets starting with SMD-V or SMD-R, the CRC filed contains an mCRC value calculated on the data octets of the frame from the first octet of the frame to the last octet transmitted in that mPacket. The computation corresponds to performing steps a) through d) in 3.2.9. The mCRC is the XOR of the calculated 32 bits and 0x0000 FFFF.

For all other mFrames, the CRC field contains the last 4 octets of the MAC frame (the FCS field)."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Add after the first sentence of paragraph 3:

This includes mPackets used to verify that a link can support preemption capability.

Cl **99** *SC* **99.3.6** *P* **35** *L* **23** # 299

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **R**

"... performing steps a) through d) in 3.2.9."

=> The references to "3.2.9" is not within the draft
=> As mentioned at page 13: Cross references that refer to clauses, tables, equations, or figures not covered by this amendment are highlighted in green.

=> But to which standard refers this reference?

SuggestedRemedy

Add the relevant standard

Response *Response Status* **C**

REJECT.

Cl **99** *SC* **99.4** *P* **35** *L* **27** # 125

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **T** *Comment Status* **A**

"enabled" seems more relevant in this context than "active", because "enabled" and "disabled" are used in the rest of the paragraph.

SuggestedRemedy

Change "active" in page 35, line 27 with "enabled".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Active is used because going from inactive to active is when the transmit behavior changes.

For consistancy, change the last sentence to:
The link partner can transition from
preemption not active to preemption active without MAC Merge behavior changing and the received frames will be correctly processed and received.

Cl **99** *SC* **99.4** *P* **35** *L* **29** # 214

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

This sentence is somewhat confusing. Is there a normative statement here? what does "can" mean when referring to the link partner?

Also "behavior" is repeated twice, which does not seem correct.

The whole paragraph should be rephrased.

SuggestedRemedy

Change the text in this paragraph to:

"The MAC Merge receiver always operates the same way regardless of whether preemption in the remote transmitter is active or not. This allows MAC Merge sublayers to enable and use preemption once the other side has indicated support for it, without synchronizing the transition between the two ends of the link.".

Response *Response Status* **C**

ACCEPT. "Can" means "is able to". Another comment fixed the repeat of behavior. But the proposed words read better.

Cl **99** *SC* **99.4** *P* **35** *L* **31** # 42

Dwelley, David Linear Technology

Comment Type **E** *Comment Status* **A**

"Behavior" appears twice: "...without MAC Merge behavior changing its behavior and..."

SuggestedRemedy

Change to: "...without MAC Merge behavior changing and..." - or something similar that doesn't repeat "behavior"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Fixed by another comment

Cl **99** *SC* **99.4** *P* **35** *L* **33** # 215

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

The MAC frame format is an already established concept. The express mPacket is new.

The sentence is long and contains "will", so should be rephrased.

SuggestedRemedy

Change to
"The express mPacket format is the same as the MAC format. As a result, any frames received from a device that does not support preemption or that has preemption disabled are received through the eMAC."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. But should say MAC packet

Cl **99** *SC* **99.4** *P* **35** *L* **34** # 275

Regev, Alon Ixia

Comment Type **TR** *Comment Status* **A**

A MAC frame cannot have the same format of an mPacket as an mPacket is a packet (contains preamble & SFD) and a MAC frame does not contain these. See definition of MAC frame and packet in section 1.4. All instances of "MAC frame" should be changed to "packet" in this clause.

The IEEE specification is not consistent in its use of "frame". In the MAC secion, it is consistently used to refer to "MAC frame" (not packet). In later PHY specs, the term "frame" is used to refer to "packet" (not MAC frame). As this section is inbetween the MAC & PHY layers, I suggest we use "packet" instead of "frame" in this clause.

SuggestedRemedy

Change all instances of "MAC frame" to "packet"

Consider changing all other instances of "frame" to packet (this would make this clause more consistent in my opinion)

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Change frame to packet here. Editor to review other istances of frame and change to packet if appropriate.

Cl **99** *SC* **99.4.1** *P* **35** *L* **36** # 126

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **T** *Comment Status* **A**

"disabled" may be more relevant here than "not enabled".

SuggestedRemedy

Change "not enabled" with "disabled" on line 36 and 38 in page 35.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Check also for other instances of not enabled and replace with disabled

Cl **99** *SC* **99.4.2** *P* **36** *L* **1** # 155

Law, David — HP

Comment Type **T** *Comment Status* **A**

The text states that 'The preemption capability should be disabled on link failure.', however the use of 'should' means that this is only recommended. It would seem to me this needs to be mandatory. As an example a link failure could be the result of a connection being unplugged from a link partner that does support preemption, then being plugged in to a link partner that does not support preemption. Due to this it would seem preemption has to be disabled on link failure, and this is what is shown in Figure 99-7 Verify State Diagram with verify set to FALSE in the INIT_VERIFICATION state if link_fail=TRUE.

SuggestedRemedy

Change '... capability should be disabled ...' to read '... capability shall be disabled ...'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The problem is that there is no indication provided across the PLS of link fail. Therefore, one is dependent on whether an implementation has an implementation-dependent way to gain knowledge of link failure.

Change to:
"The preemption capability is disabled on detection of link failure by implementation dependent means."

The Verify state diagram provides the normative requirement. This is descriptive text about the function.

Cl **99** *SC* **99.4.2** *P* **36** *L* **1** # 300

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **R**

The preemption capability shall be enabled only if the link partner announces its support for the preemption capability via an Additional Ethernet Capabilities TLV.

The new draft describes the verification process in front of enabling preemption. Should the sentence not also contain this mechanism?

SuggestedRemedy

Proposal:

The preemption capability shall be enabled only if the link partner announces its support for the preemption capability via an Additional Ethernet Capabilities TLV and if the verification was successful.

Response *Response Status* **C**

REJECT. Verfication doesn't enter in to whether it is enabled. Verification is required to transition to active if verification is enabled.

Cl **99** *SC* **99.4.2** *P* **36** *L* **2** # 229

Ran, Adee — Intel

Comment Type **T** *Comment Status* **A**

Disabling preemption on link failure is phrased as a recommendation (should), it should probably be normative.

SuggestedRemedy

Change "should" to "shall".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #155

Cl **99** *SC* **99.4.2** *P* **36** *L* **2** # 320

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

The preemption capability should be disabled on link failure.

Should the preemption capability not also be disabled in case if verification fails?

SuggestedRemedy

Has to be discussed

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
The preemption capability should be made inactive on link failure.

Also, editor to check for instances of "not active" and replace with "inactive".

Cl **99** *SC* **99.4.3** *P* **36** *L* **12** # 241

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

"the" repeated twice

SuggestedRemedy

change "the the" to "the"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.3** *P* **36** *L* **12** # 130

Laubach, Mark — Broadcom Corporation

Comment Type **E** *Comment Status* **A**

Change "the the" to "the".

SuggestedRemedy

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.3** *P* **36** *L* **12** # 301

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

Verification checks that the the link can support preemption capability.

There is one "the" too much.

SuggestedRemedy

Please correct

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.3** *P* **36** *L* **17** # 43

Dwelley, David — Linear Technology

Comment Type **E** *Comment Status* **A**

Badly placed comma: "...7 octets of preamble,(0x55) an SMD-V,..."

SuggestedRemedy

Move the comma after the (0x55) or (preferred) lose the "(0x55)". If the latter, also delete "(0x55)" at line 21.

While we're here, also fix the missing period at the end of line 18.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.3** *P* **36** *L* **17** # 127

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **T** *Comment Status* **A**

"mCRC" is also written as "MCRC".
It is inconsistent.

SuggestedRemedy

Change "MCRC" with "mCRC" in the following locations:

Page 36, line 17
Page 36, line 20
Page 36, line 21
Page 36, line 23

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Use mCRC except where other conventions (e.g. figure fields, state names and function names).

Cl **99** *SC* **99.4.3** *P* **36** *L* **21** # 302

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

Different notation MRCRC and mCRC.

Is there a special meening if the MCRC is in capital letters?

SuggestedRemedy

If no, please use always the same notation.

If yes, please describe the differences.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.3** *P* **36** *L* **25** # 274

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **A**

The text states that "Verificaiton may be disabled", but this is not handled properly in multiple places (for example, it doesn't actually disable the verification).

SuggestedRemedy

In Figure 99-7 (Verify State Diagram) on page 46,
change the transition from VERIFICATION IDLE to SEND_VERIFY from "pEnable=TRUE" to "pEnable=TRUE * disableVerify=FALSE"

In section 30.14.1.2 on page 21 on line 2, change
"An ENUMERATED VALUE that has one of the following entries:
unknown verification of preemption operation with the link partner has not been initiated
verifying verification has been initiated and has not completed
succeeded preemption operation has been verified
failed verification of preemption operation failed"

To
"An ENUMERATED VALUE that has one of the following entries:
unknown verificaiton status is unknown
not started verificaiton has not been initiated
verifying verification has been initiated and has not completed
succeeded preemption operation has been verified
failed verification of preemption operation failed
disabled verification of preemtion operation is disabled
"

Delete the editior's note on page 21 starting on lines 10-12

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. #160 and 171

Cl **99** *SC* **99.4.3** *P* **36** *L* **4** # 226

Ran, Adee Intel

Comment Type **ER** *Comment Status* **A** *Discuss*

This paragraph addresses possible behavior of devices that do not comply with another standard. Non-compliant behavior can take many forms, and this standard should not address possible consequences or proprietary devices.

It is sufficient to state that verification check is required for preemption.

SuggestedRemedy

Delete the first paragraph.

Response *Response Status* **W**

ACCEPT.

Cl **99** *SC* **99.4.3** *P* **36** *L* **7** # 333

Trowbridge, Steve Alcatel-Lucent

Comment Type **TR** *Comment Status* **A**

There are many instances of proprietary implementations of Ethernet-like things which may not work properly when interconnected with IEEE 802.3 standard compliant implementations. It is not necessary or desirable to describe them in the standard

SuggestedRemedy

Delete the first paragraph of clase 99.4.3

Response *Response Status* **W**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **26** # 366

Remein, Duane FutureWei Technologi

Comment Type **E** *Comment Status* **A**

Stray character in section title "[Transmit processing"

SuggestedRemedy

Strike

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **27** # 216

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

Stray character "["

SuggestedRemedy

Delete "["

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **27** # 191

Marris, Arthur Cadence Design Syst

Comment Type **E** *Comment Status* **A**

Remove "["

SuggestedRemedy

Change "99.4.4 [Transmit processing" to "99.4.4 Transmit processing"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **27** # 118

Hidaka, Yasuo Fujitsu Lab of America

Comment Type **E** *Comment Status* **A**

There is a garbage character "[" in front of clause title.

SuggestedRemedy

Remove a garbage character "[" in front of clause title.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **27** # 67

Hajduczenia, Marek Bright House Network

Comment Type **E** *Comment Status* **A**

Unnecessary "[" in heading of 99.4.4

SuggestedRemedy

Remove "[" in heading of 99.4.4

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **27** # 253

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

"[Transmit Processing" contains an extra "["

SuggestedRemedy

Remove the "["

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **27** # 379

Scruton, Peter — University of New Ham

Comment Type **E** *Comment Status* **A**

Subclause 99.4.4 title has '[' in it.

SuggestedRemedy

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **29** # 44

Dwelley, David — Linear Technology

Comment Type **E** *Comment Status* **R**

Run-on sentence: "It preempts a preemptable frame when a MM_CTL.request(HOLD) is received or the eMAC has a frame to transmit if that can be done while meeting minimum mPacket data field size and a multiple of eight octets of the frame has been sent."

SuggestedRemedy

Change to: "It preempts a preemptable frame when a MM_CTL.request(HOLD) is received or the eMAC has a suitable frame to transmit. Suitable eMAC frames
meet the minimum mPacket data field size when a multiple of eight octets of the frame has been sent."

Might be worth verifying that I parsed that sentence properly...

Response *Response Status* **C**

REJECT. It isn't the eMAC packet that matters. It is the packet being preempted that has to meet the qualifications.

We made the sentence shorter in another comment resolution by deleting "and a multiple of eight octets of the frame has been sent"

Cl **99** *SC* **99.4.4** *P* **36** *L* **31** # 276

Regev, Alon — Ixia

Comment Type **TR** *Comment Status* **A**

We no longer have an 8 byte alignment requirement.

SuggestedRemedy

remove "and a multiple of eight octets of the frame has been sent"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **31** # 321

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

"... mPacket data field size and a multiple of eight octets of the frame has been sent."

=> I'm not sure but did we not decide to skip the definition of "a multiple of eight octets"?

SuggestedRemedy

Please check

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. "and a multiple of eight octets of the frame" will be deleted.

Cl **99** *SC* **99.4.4** *P* **36** *L* **33** # 259

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **R**

Only 60 data octets need to remain in a packet for it to be able to be preempted (there are 4 FCS octets in addition to the 60 data octets).

SuggestedRemedy

Change "64 data octets remain to be transmitted"
To "60 data octets remain to be transmitted"

Response *Response Status* **C**

REJECT. The FCS octets are included in the data remaining in the frame because they come from the MAC.

Cl **99** *SC* **99.4.4** *P* **36** *L* **35** # 230

Ran, Adee Intel

Comment Type **T** *Comment Status* **A**

addFragSize is not a multiple of 64 octets - it is the multiplier.

"can" should be "may" here, since it describes a permissible action (is permitted to) rahter than a capabilty.

"will" should be "shall" here, as this is the normative behavior.

SuggestedRemedy

Change paragraph to

"A device may indicate that its receiver requires an additional multiple of 64 octets before preemption occurs, using the addFragSize field in the TLV. If addFragSize in the TLV received from the link partner is non-zero, then preemption shall not occur until at least 64 * (1 + addFragSize) octets of the preemptable frame have been sent. "

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. May indicates an option. This is describing that a device can make a request using the LLDP TLV. The requirement is covered by the state machine so will is used here.

"A device can indicate that its receiver requires an additional multiple of 64 octets before preemption occurs, using the addFragSize field in the TLV. Preemption will not occur until at least 64 * (1 + addFragSize) octets of the preemptable frame have been sent. "

Cl **99** *SC* **99.4.4** *P* **36** *L* **35** # 303

Tretter, Albert Siemens

Comment Type **E** *Comment Status* **A**

"A link partner can indicate in the Additional Capabilities TLV that the ..."

In clause 79 this TLV is called "Additional Ethernet Capabilties TLV"

SuggestedRemedy

Please correct

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.4** *P* **36** *L* **45** # 322

Tretter, Albert Siemens

Comment Type **T** *Comment Status* **A**

If a frame is preempted, transmit processing appends the mCRC to the mPacket.

This statment is not true for the final mPacket, as described in clause 9.3.6 CRC:
The CRC field contains a cyclic redundancy check (CRC) for mPacket data and an indication of whether this is the final mPacket of a frame. For the final mPacket of a frame, the CRC field contains the last 4 octets of the MAC frame (the FCS field).

SuggestedRemedy

Please correct

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Change to "When a frame is preempted…

Cl **99** *SC* **99.4.5** *P* **37** *L* **11** # 233

Ran, Adee Intel

Comment Type **TR** *Comment Status* **R**

This is the DISCARD function. "Ensure" by "implementation dependent means" seems dangerous - what is the MTTFPA with an unknown implementation? The DISCARD should definitely be a normative function, and it is much more difficult to verify that "implementation dependent" does what is should do.

SuggestedRemedy

There are two well-described methods of achieving this requirement here. Please choose one or the other (or another one) and make it normative.

Response *Response Status* **W**

REJECT. The mechanism isn't made normative because this isn't happening over an exposed interface so it can't be tested. Similar text is used when the reconciliation sublayer receives an error indication from the xMII. In many implementations, the MAC Merge Sublayer will be implemented integrated with the MACs (as is the case for the RS and MAC) and discard will be ensured by implementation dependent means such as a control signal indicating the frame is to be discarded.

The state machines are covered by a shall and this behavior is provided by the DISCARD function.

Cl **99** *SC* **99.4.5** *P* **37** *L* **12** # 217

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

"Then PLS_DATA_VALID.indication(DATA_NOT_VALID) is sent to the pMAC"

This either isn't a complete sentence, or a full-stop is missing. The meaning is not clear.

The previous sentences already describe what should happen "prior to indicating DATA_NOT_VALID to the pMAC", so this addition may not be neccesary.

SuggestedRemedy

Rephrase to clarify what this sentence means, or delete it.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Add a period.

Cl **99** *SC* **99.4.5** *P* **37** *L* **20** # 129

Hidaka, Yasuo Fujitsu Lab of Americ

Comment Type **TR** *Comment Status* **R**

It seems that preemption and an end of mPacket is detected by simply checking mCRC.

This is not an acceptable method, because the original data in the middle of a frame may match the mCRC, and a false end of mPacket is detected. Such a false detection of end of mPacket is repeated, when the same frame is retransmitted.

This is an update to my previous comment with additional remedy.

SuggestedRemedy

Use one of the following schemes:

Option 1: Use a fixed length of mPacket.
Option 2: Decide the length of mPacket before sending mPacket and send the length information at the begining of mPacket.
Option 3: In the transmit process, encode the original data of the frame so that a false mCRC will not be detected by adding some additional information. In the receive process, decode the original data using the additional information.
Option 4: Transmiter monitors the original data values in the frame if there is a false match of mCRC while transmitting mPacket. If the transmiter detects the original data values matching mCRC, the transmitter stops sending mPacket as if it was preempted, because the receiver will detect it as an end of mPacket. The transmitter resumes sending mPacket from the original data that has caused false match of mCRC, as if it was preempted.

I recommend option 1 or 4.
Option 1 is the simplest.
Option 4 is more complexed, but is more efficient than option 1.

Response *Response Status* **C**

REJECT. The mCRC calculatin method ensures that the mCRC is never the same as the CRC of the frame data sent so far.

That is one of the reasons that the mCRC is computed over all the data sent from the first mPacket of the frame. If it was the end of the frame, the MAC CRC computation XORs that value with all 1s and if it is the end of a fragment the value is XORed with 16 0s and 16 1s.

The problem you mention could occur if the mCRC was calculated only over the data in the current mPacket rather than all the data since the first mPacket of a frame. The method used also has the side benefit that when MAC Merge and the MACs are implemented together (as they usually will be) one CRC generator can be used for both computation. The mCRC is just produced from an intermediate result of the frame CRC generator.

Option 1 or 2 would require significant extra overhead as, in the case where Express traffic isn't scheduled traffic, one doesn't know if one might need to preempt the frame so one would have to chop frames up all the time just in case or not be able to preempt ata ll. Option 3 would require additional overhead. Option 4 is unneeded because the case can't

happen.

Cl **99** *SC* **99.4.5** *P* **37** *L* **20** # 128

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **TR** *Comment Status* **R**

It seems that preemption and an end of mPacket is detected by simply checking mCRC.

This is not an acceptable method, because the original data in the middle of a frame may match the mCRC, and a false end of mPacket is detected. Such a false detection of end of mPacket is repeated, when the same frame is retransmitted.

SuggestedRemedy

Use one of the following schemes:

Option 1: Use a fixed length of mPacket.

Option 2: Decide the length of mPacket before sending mPacket and send the length information at the begining of mPacket.

Option 3: In the transmit process, encode the original data of the frame so that a false mCRC will not be detected by adding some additional information. In the receive process, decode the original data using the additional information.

I recommend option 1, because it is the simplest.

Response *Response Status* **C**

REJECT. Earlier version of 129. See #129

Cl **99** *SC* **99.4.5** *P* **37** *L* **20** # 218

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

Wording of "checks... to see" can be improved.

SuggestedRemedy

Change "checks the last four octets of the mPacket to see if they match" to "checks whether last four octets of the mPacket match".

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.5** *P* **37** *L* **26** # 304

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

An SMD containing an SMD-C an mPacket that continues the data for a preempted frame.

=> Something is missing here: "... SMD-C indicates an mPacket ..."

SuggestedRemedy

An SMD containing an SMD-C indicates an mPacket that continues the data for a preempted frame.

Please correct

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #55

Cl **99** *SC* **99.4.5** *P* **37** *L* **26** # 48

Dwelley, David — Linear Technology

Comment Type **T** *Comment Status* **A**

Broken sentence: "An SMD containing an SMD-C an mPacket that continues the data for a preempted frame."

SuggestedRemedy

Fix appropriately. It's broken enough now that I can't divine the intended meaning.

Response *Response Status* **C**

ACCEPT. # 262

Cl **99** *SC* **99.4.5** *P* **37** *L* **26** # 119

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **A**

The sentense on line 26, page 37 looks odd.

SuggestedRemedy

Change the sentense on line 26, page 37 as follows:

"An mPacket that contains SMD-C continues the data for a preempted frame."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #55

Cl **99** *SC* **99.4.5** *P* **37** *L* **26** # 262

Regev, Alon Ixia

Comment Type **T** *Comment Status* **A**

"An SMD containing an SMD-C an mPacket that continues the data for a preempted frame." is missing a verb.

SuggestedRemedy

Change "An SMD containing an SMD-C an mPacket that continues the data for a preempted frame."

To "An SMD containing an SMD-C indicates the start of an mPacket that continues the data for a preempted frame."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.5** *P* **37** *L* **26** # 219

Ran, Adee Intel

Comment Type **E** *Comment Status* **A**

"An SMD containing an SMD-C an mPacket that continues the data for a preempted frame."

This does not seem to be a complete sentence.

SuggestedRemedy

Rephrase to clarify the intended meaning.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #55

Cl **99** *SC* **99.4.5** *P* **37** *L* **26** # 367

Remein, Duane FutureWei Technologi

Comment Type **E** *Comment Status* **A**

This sentence does not make sense: "An SMD containing an SMD-C an mPacket that continues the data for a preempted frame"

SuggestedRemedy

Change to: "An SMD containing an SMD-C indicates the continuation of an mPacket that has been preempted.".

Response *Response Status* **C**

ACCEPT. See #55

Cl **99** *SC* **99.4.5** *P* **37** *L* **26** # 26

Beaudoin, Denis Texas Instruments

Comment Type **E** *Comment Status* **A**

Sentence structure issue:
An SMD containing an SMD-C an mPacket that continues the data for a preempted frame

SuggestedRemedy

An SMD containing an SMD-C is an mPacket that continues the data for a preempted frame

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #55

Cl **99** *SC* **99.4.5** *P* **37** *L* **28** # 261

Regev, Alon Ixia

Comment Type **T** *Comment Status* **A**

It is not clear that "Receive processing checks that:" only applies when receiveing an SMD containing an "SMD-C".

SuggestedRemedy

Change "Receive processing checks that:"
To "Upon receiving an SMD value of SMD-C, receive processing checks that"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.5** *P* **37** *L* **3** # 47

Dwelley, David Linear Technology

Comment Type **T** *Comment Status* **R**

"If an mPacket contains an SMD-E, receive processing ignores the mPacket." This makes it sound like SMD-E packets are discarded!

SuggestedRemedy

Change to: "If an mPacket contains an SMD-E, receive processing does not modify the mPacket."

Response *Response Status* **C**

REJECT. Receive processing doesn't process the packet. There is another function, Express Filter, that passes SMD-E packets to the eMAC.

Cl **99** *SC* **99.4.5** *P* **37** *L* **45** # 344

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

Is "Receive processing" a proper noun? inconsistent capitalization (see line 8 vs. line 45 - many other instances of "receive processing" appear in other sections, but those in this subclause are mostly at the start of sentences)
See also pg 39 line 54 for "Receive processing".

SuggestedRemedy

Editor to check and correct either line 8 or line 45 capitalization, and check & correct throughout the draft.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. It should be capitalized as it is the name of a function.

Cl **99** *SC* **99.4.5** *P* **37** *L* **8** # 260

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **A**

In the sentence "If receive processing was processing an incomplete preempted frame, receive processing ensures that the pMAC will detect a FrameCheckError prior to indicating DATA_NOT_VALID to the pMAC." it is not clear that this only applies if an SMD containing an SMD-S is received

SuggestedRemedy

Change
"If receive processing was processing an incomplete preempted frame, receive processing ensures that the pMAC will detect a FrameCheckError prior to indicating DATA_NOT_VALID to the pMAC."

To
"If an mPacket containing an SMD-S is received when receive processing was processing an incomplete preempted frame, receive processing ensures that the pMAC will detect a FrameCheckError prior to indicating DATA_NOT_VALID to the pMAC."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.6** *P* **37** *L* **50** # 45

Dwelley, David — Linear Technology

Comment Type **E** *Comment Status* **A**

Missing "the"s: "Express filter checks the SMD of each received mPacket. If an mPacket contains an SMD-E, express filter passes..."

SuggestedRemedy

Change to: "The express filter checks the SMD of each received mPacket. If an mPacket contains an SMD-E, the express filter passes..."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. It is a proper name of a function. Don't add "the". Capitalize Express filter

Cl **99** *SC* **99.4.7** *P* **46** *L* **3** # 145

Law, David — HP

Comment Type **ER** *Comment Status* **A** *Discuss*

Please provide separate figure numbers and titles for the two state diagrams currently illustrated in Figure 99-7 'Verify State Diagram'.

SuggestedRemedy

Place the second state diagram in Figure 99-7 in a new Figure 99-8 'Verify Response State Diagram'. In addition change the text at the end of the last paragraph of subclause 99.4.3 'Verifying preemption operation' from '... in Figure 99-7.' to read '... in Figure 99-7 and Figure 99-8.' and add the text 'The Verify Response State Diagram is shown in Figure 99-8.' to the end of the first paragraph of subclause 99.4.7.7 'State diagrams'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. It is helpful to see these two small machines together in one figure to see how they work with each other. Keep in the same figure but label them as two state machines with a) and b).

Editor will look at Clause 76 for a similar example.
Change text to describe as two state machines.

Cl **99** *SC* **99.4.7.1** *P* **38** *L* **17** # 144

Law, David HP

Comment Type **ER** *Comment Status* **A** *Discuss*

The subclause 99.4.7.1 'State diagram conventions' defines prefaces for the PLS service interface, 'e', 'p' and 'r'. Figure 99-2 'MAC Merge Functional Block Diagram' defines a different set of prefaces for the PLS service interface, 'eMAC:', 'pMAC:' and 'RS:', however these are not used anywhere else.

SuggestedRemedy

To aid clarity I suggest that one set of prefaces are used, and I would suggest that it be those used in Figure 99-2 as they are similar to those used elsewhere, for example IEEE Std 802.3-2012 subclause 80.3.2 'Instances of the Inter-sublayer service interface'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Some of the state machines are very crowded. Adding 3 more characters to many names will make them more crowded and harder to read.

The prefaces e, p and r could be considered abbreviations for eMAC, pMAC and RS in the state machine object names used for compactness and clearly related to the longer prefixes.

Currently the state machine uses m rather than r for the prefix. Change:
— m PLS service interface between MAC Merge and PLS
to
— r PLS service interface between MAC Merge and RS
and update the object names to match.

Cl **99** *SC* **99.4.7.3** *P* **38** *L* **37** # 231

Ran, Adee Intel

Comment Type **T** *Comment Status* **A**

addFragSize is a small number which is technically not a multiple of 64.

SuggestedRemedy

Change "multiple" to "multiplier".

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.3** *P* **38** *L* **37** # 263

Regev, Alon Ixia

Comment Type **T** *Comment Status* **A**

AddFragSize is now 2 bits and should therefore have a range of 0:3

SuggestedRemedy

change "0:7" to "0:3"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.3** *P* **38** *L* **38** # 156

Law, David HP

Comment Type **T** *Comment Status* **A**

The description states that addFragSize is an integer in the range 0 to 7 indicating, as a multiple of 64, the minimum additional length for nonfinal mPackets.

Suggest the calculation used in the 'preempt' variable later in this subclause, and subclause 99.4.4 'Transmit processing', 64 x (1 + addFragSize), be stated here so there's no misunderstanding that the length is simply the multiplication of addFragSize by 64.

I'm not sure why the term 'additional' is used in respect to the length of non-final mPackets, from examination of the use of the 'preempt' variable in the state diagram, and the description in subclause 99.4.4 'Transmit processing' which reads 'preemption will not occur until at least 64 x (1 + addFragSize) octets have been sent' it seems that addFragSize is used to calculate the minimum length of a non-final mPacket.

It also seems that this variable is the input that controls the minimum length, not just an indication of it.

SuggestedRemedy

Change the description to read 'Integer in the range 0:7 used to configure the minimum non-final mPacket length. The minimum non-final mPacket length is 64 x (1 + addFragSize) octets.'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Change range to 0:3

Cl **99** *SC* **99.4.7.3** *P* **38** *L* **43** # 264

Regev, Alon Ixia

Comment Type **T** *Comment Status* **A**

"continuation mPacket" is not defined. There is no indication anywhere in the draft that the C in SMD-C stands for "continuation".

SuggestedRemedy

Change the definition of cFrameCnt from
"An integer in the range 0:3 indicating the frame count in a continuation mPacket."
To
"An integer in the range 0:3 indicating the frame count in a non-initial mPacket."

Change the definition of rxFragCnt from
"An integer in the range 0:3 indicating the fragment count in a continuation mPacket."
To
"An integer in the range 0:3 indicating the fragment count in a non-initial mPacket."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
Istead see #258

Cl **99** *SC* **99.4.7.3** *P* **38** *L* **43** # 177

Law, David HP

Comment Type **T** *Comment Status* **A**

Suggest that text be added to state that the variable 'cFrameCnt' is set by the 'SMD_DECODE' function. Add similar text for the cFrameCnt, rxFragCnt and rxFrameCn variables.

SuggestedRemedy

Change the text '... in a continuation mPacket.' to read '... in a continuation mPacket, returned by the SMD_DECODE function.'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. "set by the SMD_DECODE function invoked on the SMD-C of a continuation mPacket."

Add similar text for the cFrameCnt, rxFragCnt and rxFrameCn variables.

Cl **99** *SC* **99.4.7.3** *P* **38** *L* **44** # 166

Law, David HP

Comment Type **TR** *Comment Status* **A**

The description for the variable 'disableVerify' states that it is 'A Boolean variable that is set TRUE to disable verification and FALSE to enable verification'. I however don't see how it has any effect on the operation of the Figure 99-7 'Verify State Diagram'. Instead the only use of the variable I can find is in the equation for the variable 'pActive' (line 14), and the only use of the pActive variable is in the equation for the variable 'preempt' (line 21). Based on these equations, when disableVerify is set to TRUE, the variable preempt is no longer dependant on the state of the variable 'verified', the output of the Verify State Diagram.

Hence the variable 'disableVerify' removes the need for successful verification before the operation of preemption. However when disableVerify is set to TRUE, the Verify State Diagram will still operate as normal, sending verify frames and looking for responses. This seems contrary to the variable description since I wouldn't expect verification frames to be sent when it is stated that the variable disableVerify '... is set TRUE to disable verification ...'. This also doesn't seem to match the subclause 99.4.3 'Verifying preemption operation' statement that ' Verification may be disabled'.

Instead I think disableVerify set to TRUE should set the Figure 99-7 'Verify State Diagram' back to its initial state 'INIT_VERIFICATION'.

SuggestedRemedy

Update the Figure 99-7 'Verify State Diagram' so that disableVerify set to TRUE places the state diagram back to its initial state INIT_VERIFICATION. This can be achieved by adding disableVerify as an additional OR condition to the current open arrow in to this state. This will not result in verification mPacket truncation if disableVerify is set to TRUE during a verification mPacket transmission as the Verify State Diagram doesn't send packets. Instead it causes Figure 99-4 'Transmit Processing State Diagram' to send them through the 'send_v' variable, and that process will still complete regardless of the state of Verify State Diagram and the variable disableVerify.

In summary on page 46, line 2, change the text to read 'begin + link_fail + disableVerify'. Note I have also submitted a comment suggesting that pEnable be added to this equation.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.3** *P* **39** *L* **14** # 157

Law, David HP

Comment Type **T** *Comment Status* **R**

As far as I can tell the variable pActive is not used in any state diagram, only as a variable in definition of preempt (line 21). Suggest for improved clarity that the variable pActive is deleted and the definition of preempt be updated.

SuggestedRemedy

Change 'The value of preempt is: pActive * (eTx=TRUE + ...' to read ' The value of preempt is: pEnable * (verified + disableVerify) * (eTx=TRUE + ...'.

Response *Response Status* **C**

REJECT. The equation is already long. Breaking it into deciding whether preemption is Active to set pActive makes it easier on the reader.

Also #386 response will use pActive in an additional place.

Cl **99** *SC* **99.4.7.3** *P* **39** *L* **17** # 158

Law, David HP

Comment Type **T** *Comment Status* **A**

The description of the 'pEnable' variable states that it '... is TRUE when preemption capability is enabled and FALSE otherwise.'. This makes it sound like pEnable is a status, rather than a control, also pEnable only has an impact on transmit, it has no effect on Figure 99-5 'Receive Processing State Diagram' and the ability to process mPackets from the link partner.

SuggestedRemedy

Change the description to read 'A Boolean variable that is set TRUE to enable transmit preemption and FALSE to disable transmit preemption.'. If this change is not implemented the behaviour of the attribute 30.14.1.3 'aMACMergeStatusEnable' may need to be updated.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.3** *P* **39** *L* **24** # 242

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

"an pPLS_DATA.request" should be "a pPLS_DATA.request"

SuggestedRemedy

Chagne "an pPLS_DATA.request" to "a pPLS_DATA.request"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.3** *P* **39** *L* **39** # 243

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

"intial" should be "initial"

SuggestedRemedy

change "intial" to "initial"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.3** *P* **39** *L* **45** # 323

Tretter, Albert Siemens

Comment Type **T** *Comment Status* **R**

If the variable "verify_fail" is set I assume that the MAC Client has to know this in order to send all frame via the eMAC.

In the other case if the variable "verified" is set the MAC Client shall send the preemtable frames via the pMAC.

Is my interpretation correct?

If yes is this information already incorporated in 802.1 specifications?

SuggestedRemedy

Should be discussed with 802.1

Response *Response Status* **C**

REJECT. You can always use both MACs to transmit. If premption capability isn't active, the pMAC frames won't be preempted. The eMAC will have strict priority over the pMAC. I.e. a pMAC frame will be transmitted only when there is no eMAC frame ready to transmit.

Cl **99** *SC* **99.4.7.4** *P* **39** *L* **53** # 254

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

"detectsa" should be "detects a"
"(99.4.5)" should ber "(see 99.4.5)"

SuggestedRemedy

change "detectsa" to "detects a"
change "(99.4.5)" to (see 99.4.5)"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **39** *L* **53** # 305

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

"Invokes an implementation dependent process to ensure that a pMAC detectsa CRC error in a preemptable ....."

=> "detectsa" should be changed to "detects a"

SuggestedRemedy

Please correct

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **39** *L* **53** # 141

Law, David — HP

Comment Type **E** *Comment Status* **A**

Typo.

SuggestedRemedy

Chnage '... a pMAC detectsa CRC ...' to read '... a pMAC detects a CRC ...'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **39** *L* **53** # 364

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

Typo: 'detectsa'

SuggestedRemedy

Substitute 'detects a'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **40** *L* **14** # 266

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **A**

Add a reference to the frag_count encoding table

SuggestedRemedy

Change
"Returns an 8-bit vector with the frag_count encoding for a fragment count of frag_cnt."
To
"Returns an 8-bit vector with the frag_count encoding for a fragment count of frag_cnt (see Table 99-2)."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **40** *L* **15** # 185

Law, David HP

Comment Type **TR** *Comment Status* **A**

The function FRAG_DECODE states 'Returns a Boolean value of TRUE if the primitives contain a valid frag_count value and FALSE otherwise'. I can't see any use of this Boolean, there is no variable defined for it, and I don't see any effect on the Receive Processing State Diagram.

The exit from the CHECK_FRAG_CNT state in the Receive Processing State Diagram is based only on the value of rxFragCnt returned by the FRAG_DECODE function equalling, or not equalling, nxtRxFrag. Since the function definition does not define what value to set rxFragCnt to in the case of an invalid frag_count value, it is bit unclear what is being defined as the require behaviour.

SuggestedRemedy

Either [a] define the Boolean that is set by the FRAG_DECODE function, set that variable to FALSE in the IDLE_RX_PROC state, and test that variable on exit from the CHECK_FRAG_CNT state with it being FALSE causing a transition to the ASSEMBLY_ERROR state, alternatively (b) update the definition of the FRAG_DECODE function to set rxFragCnt to (nxtRxFrag - 1) if the primitives contain an invalid frag_count value, to force an exit to ASSEMBLY_ERROR out of the CHECK_FRAG_CNT state, and delete mention of the Boolean from the definition of the FRAG_DECODE function.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Delete 'Returns a Boolean value of TRUE if the primitives contain a valid frag_count value and FALSE otherwise'

However, we need to deal with the case where frag_count contains an invalid value.
Change:
Places the fragment count decoded in rxFragCnt. To
If frag_count contains a valid value, places the fragment count decoded in rxFragCnt. Otherwise it sets rxFrageCnt to 4.

Change range of rxFragCnt to 0:4

Cl **99** *SC* **99.4.7.4** *P* **40** *L* **15** # 173

Law, David HP

Comment Type **T** *Comment Status* **A**

Define the mapping from PLS_DATA.request to bit values, and the order, as is done in a number of other functions, for the functions FRAG_DECODE, SFD_DET, SMD_DECODE.

SuggestedRemedy

Add the text 'The bit is 1 if the corresponding primitive value is ONE and 0 if the corresponding primitive is ZERO. The primitives are mapped to bit 0 to bit 7 in sequence.' after the first sentence.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **40** *L* **16** # 267

Regev, Alon Ixia

Comment Type **T** *Comment Status* **A**

in FRAG_DECODE, the eight mPLS_DATA.indication primitives contain an "encoded" frag_count (not frag_count itself)

SuggestedRemedy

Change
"Decodes eight mPLS_DATA.indication primitives containing frag_count."

To
"Decodes eight mPLS_DATA.indication primitives containing an encoded frag_count (see Table 99-2)."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **40** *L* **49** # 268

Regev, Alon Ixia

Comment Type **T** *Comment Status* **A**

In the definition of RX_MCRC_CK, pPLS_DATA.indication should be mPLS_DATA.indication

SuggestedRemedy

change "pPLS_DATA.indications" to "mPLS_DATA.indications"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Use "rPLS_DATA.indications"

Cl **99** *SC* **99.4.7.4** *P* **40** *L* **50** # 306

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

"It is false otherwise."

The value of a boolean is normally written in capital letter "FALSE"?

SuggestedRemedy

Please check

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **40** *L* **52** # 178

Law, David — HP

Comment Type **T** *Comment Status* **A**

Suggest that the SFD_DET detect function should be defined as a prescient function as it is looking ahead at the next 8 bits.

SuggestedRemedy

See comment.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **41** *L* **1** # 269

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **A**

Add a referece to the SMD values table

SuggestedRemedy

On Page 41, Line 1
Change "based on the value of the primitives:"
to "based on the value of the primitives (see Table 99-1):"

On Page 42, Line 12
Change "Returns an 8-bit vector with the SMD encoding for an SMD-C with frame count of frame_cnt."
To "Returns an 8-bit vector with the SMD encoding for an SMD-C with frame count of frame_cnt (see Table 99-1)."

On Page 42, Line 14
Change "Returns an 8-bit vector with the SMD encoding for an SMD-S with frame count of frame_cnt. Consumes 8 pPLS_DATA.request primitives containing the SFD."
To "Returns an 8-bit vector with the SMD encoding for an SMD-S with frame count of frame_cnt (see Table 99-1). Consumes 8 pPLS_DATA.request primitives containing the SFD."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.4** *P* **41** *L* **14** # 386

Tabatabaee, Vahid — Broadcom

Comment Type **T** *Comment Status* **A**

SMDS_ENCODE must check if preemption status is active. If preemption is not active the return value should be SFD.

SuggestedRemedy

Add condition for checking preemption status in SMDS_ENCODE.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. If pActive is true, SMDS_ENCODE produces SFD

Cl **99** *SC* **99.4.7.5** *P* **41** *L* **30** # 179

Law, David HP

Comment Type **T** *Comment Status* **A**

The definition of the fragSize counter states that it is 'the number of octets transmitted in the current preemptable mPacket'. A packet however includes the Preamble and the Start Frame Delimiter (see Figure 99-3).

Since this counter is set to zero in the IDLE_TX_PROC state, and will not start to increment until the PREMPTABLE_TX state in the Transmit Processing State Diagram, which is after the SMD-S has been sent in the previous SEND_SMD-S state, this is not a count of the octets transmitted in the mPacket, but instead the octets transmitted in the preemptable frame.

SuggestedRemedy

Change the text '... in the current preemptable mPacket' to read '... in the current preemptable frame'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. It isn't the number of octets of the frame transmitted in the current mPacket. Use "the number of octets of mData transmitted in the current preemptable mPacket".

#98 renamed the mPacket data field mData - that doesn't include preamble, etc.

Cl **99** *SC* **99.4.7.5** *P* **41** *L* **41** # 255

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

use "attempts" instead of "tries" as it's meaning is clearer.

SuggestedRemedy

Change "tries" to "attempts"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.6** *P* **41** *L* **43** # 167

Law, David HP

Comment Type **TR** *Comment Status* **A**

The timers should be defined with reference to subclause 14.2.3.2, see subclause 73.10.2 'State diagram timers' for an example. This will define what 'start ipg_timer' means and when ipg_timer_done is cleared.

SuggestedRemedy

Change the subclause to read:

All timers operate in the manner described in 14.2.3.2.

ipg_timer
A timer counting bit times since the end of the prior frame. The timer will expire 96 bit times after being started.

verify_timer
A timer of time from when a verification mPacket was sent to initiating the next attempt. The timer will expire verifyTime ± 20% ms after being started. The default value of verifyTime is 10 ms.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. The reference to 14.2.3.2 is already present (99.4.7.1)

Accept the changes to the timer definitions.

Cl **99** *SC* **99.4.7.6** *P* **41** *L* **46** # 244

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

missing period.

SuggestedRemedy

Change
"A timer counting bit times since the end of the prior frame The timer will set ipg_timer_done when it reaches 96 bit times."

to
"A timer counting bit times since the end of the prior frame. The timer will set ipg_timer_done when it reaches 96 bit times."

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.6** *P* **41** *L* **48** # 159

Law, David HP

Comment Type **T** *Comment Status* **A**

The verify_timer uses a variable verifyTime to set when it expires, however the variable verifyTime doesn't appear in the variable list, nor are it bounds defined.

SuggestedRemedy

Delete the text 'The default value of verifyTime is 10 ms.' From subclause 99.4.7.6 (page 41, line 50), add the following variable definition to subclause 99.4.7.3 Variables:

verifyTime

An integer in the range 1:128 used to configure the number of ms after which the verify_timer is done (see 99.4.7.6). The default value of verifyTime is 10 ms.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **42** *L* **3** # 245

Regev, Alon Ixia

Comment Type **E** *Comment Status* **A**

Figrure is repeated twice

SuggestedRemedy

change "Figure Figure 99–4" to "Figure 99–4"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* # 361

Brandt, David Rockwell Automation

Comment Type **TR** *Comment Status* **A**

Figure 99-4-Transmit Processing State Diagram

Only part of the transmit logic produces 'mPLS_DATA.request'. Portions of the logic use 'mTX_DATA( )' for this purpose, but not: 'SEND_SMD-C' and 'SEND_FRAG_COUNT' and 'SEND_SMC-S'.

SuggestedRemedy

Change from 'SMDC_ENCODE(txFrame)' to 'mTX_DATA(SMDC_ENCODE(txFrame))' in 'SEND_SMD-C'
Change from 'FRAG_ENCODE(txFrame)' to 'mTX_DATA(FRAG_ENCODE(txFrame))' in 'SEND_FRAG_COUNT'
Change from 'SMDS_ENCODE(txFrame)' to 'mTX_DATA(SMDS_ENCODE(txFrame))' in 'SEND_SMC-S'

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. Change the definitions of the functions to produce the vector directly instead. For example:
Creates an 8-bit vector with the SMD encoding for an SMD-C with frame count of frame_cnt. Produces eight ePLS_DATA.indication primitives based on the 8-bit vector. The primitive value is ONE if the corresponding bit is 1 and ZERO if the corresponding bit is 0. The primitives are produced from bit 0 to bit 7 in sequence.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* # 282

Slavick, Jeff Avago Technologies

Comment Type **TR** *Comment Status* **A**

Figure 99-4 : The IDLE_TX_PROC -> TX_VERIFY transition has an extra * after eTX=FALSE implying there might be more conditions on that transition that aren't visible. Same applies to the IDLE_TX_PROC -> TX_RESPOND transition.

SuggestedRemedy

Remove the * or enlarge the space to show all conditions necessary for those transition.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. Remove the * in both cases

Cl **99** *SC* **99.4.7.7** *P* **43** *L* # 352

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

Figure 99-4-Transmit Processing State Diagram

The variable 'ipg_timer_done' is defined and not used. Instead 'ipg_timer=done' is used. In a similar way, 'verify_timer_done"'is used correctly in Fig. 99-7.

SuggestedRemedy

Substitute “ipg_timer_done” for “ipg_timer=done”. There are 8 instances on transitions (2 are spelled wrong).

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **12** # 283

Slavick, Jeff — Avago Technologies

Comment Type **TR** *Comment Status* **A** *DISCUSS*

Figure 99-4: Many variables in the state transitions are defined as booleans. Remove the comparisons for these to TRUE/FLASE aren't necessary.

SuggestedRemedy

Remove the "=TRUE" and replace the "<variable>=FALSE" with "!<variable>" for all state transitions, provided the variable that has been defined as boolean, in Figures 99-4,5,6,7

Response *Response Status* **W**

ACCEPT. IEEE 802.3 state machines have varied in whether they used =TRUE and =FALSE or have used the variable and !varible. Doing as the commenter suggests would help with some of the state machine crowding.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **13** # 281

Slavick, Jeff — Avago Technologies

Comment Type **TR** *Comment Status* **A**

Figure 99-4 ipg_timer_done is variable, so all instances of ipg_timer=done, ipg_timer=dne, ipg_imer=done should be change to just ipg_timer_done

SuggestedRemedy

See comment

Response *Response Status* **W**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **13** # 271

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **D**

Express traffic is given priority over sending a respond mPacket. If express traffic continues for 10ms, it can delay sending a respond mPacket causing a timeout on the link partner. If this continues for 30ms (+/- 20%), the validation will fail.

SuggestedRemedy

Give priority to to respond mPackets over priority frames:

Change the condition for transition from IDLE_TX_PROC to EXPRESS_TX from "eTx=TRUE * ipg_timer=dne" to "eTx=TRUE * send_r=FALSE * ipg_timer=done"

Change the condition for transition from IDLE_TX_PROC to TX_RESPOND from "send_r=TRUE * ipg_timer=done * eTx=FALSE" to "send_r=TRUE * ipg_timer=done"

Proposed Response *Response Status* **Z**

REJECT. This has been considered. There are pluses and minuses either way, The biggest disadvantage is that making this change could delay a string of express frames by one minframe time. We wanted preemption so that wouldn't happen. Also, in the general case, there should be gaps between express traffic so verify goes soon enough. For special cases (e.g. fixed systems, engineered systems), verification can be disabled or verify time can be extended.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **13** # 168

Law, David — HP

Comment Type **TR** *Comment Status* **A**

When the ipg_timer timer expires, ipg_timer_done is set true, hence ipg_timer_done should be used as the condition for the transition, not ipg_timer = done.

SuggestedRemedy

Change 'ipg_timer=done' to read 'ipg_timer_done' here and on line 14, 15, 17, 49 and 50, and twice on line 34.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **14** # 353

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

Figure 99-4-Transmit Processing State Diagram

The logical AND symbol '*' trails a 2 transition equations from state “IDLE_TX_PROC”.

SuggestedRemedy

Remove 2 trailing '*' symbols.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **14** # 28

Beaudoin, Denis — Texas Instruments

Comment Type **E** *Comment Status* **A**

Figure 99-4
Transitions into states TX_VERIFY and TX_RESPOND have an extra * after eTx=FALSE

SuggestedRemedy

Remove extra * after eTx=FALSE

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **17** # 270

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **A**

done misspelled as dne

SuggestedRemedy

change "dne" to "done"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Yes, but overtaken by events

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **17** # 307

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

Figure 99–4—Transmit Processing State Diagram

"ipg_timer=dne"

=> change "dne" to "done"

SuggestedRemedy

please correct

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Ipg_timer_done

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **17** # 354

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

Figure 99-4-Transmit Processing State Diagram

FALSE is spelled FALE in rightmost transition equation from state 'IDLE_TX_PROC'.

SuggestedRemedy

Change 'send_v=FASE' to 'send_v=FALSE'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **17** # 30

Beaudoin, Denis — Texas Instruments

Comment Type **ER** *Comment Status* **A**

The transition to EXPRESS_TX has the word done misspelled.
'ipg_timer=dne'

SuggestedRemedy

Correct to 'ipg_timer=done'

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. See #168

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **31** # 355

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

Figure 99-4-Transmit Processing State Diagram

'PREMTABLE_TX' should be 'PREEMPTABLE_TX'.

SuggestedRemedy

Add the 'E'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **35** # 284

Slavick, Jeff — Avago Technologies

Comment Type **TR** *Comment Status* **R**

Figure 99-4: On the exit of PREMPTABLE_TX what is the priority between the transition to TX_MCRC and P_TX_COMPLETE. When both preempt and pTxCplt are TRUE there is no resolution of which path to take.

SuggestedRemedy

Add the approprieate prioirty resolution.

Response *Response Status* **W**

REJECT. No resolution is needed as the exit conditions can not be simultaneously true. It is a subtle point, but preempt can only be true if there are at least 64 octets left in the frame and pTxCplt is true when there are no octets left in the frame.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **35** # 324

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

Figure 99–4—Transmit Processing State Diagram

Check "pTxCplt=FALSE * preempt=FALSE" at state change from PREMPTABLE_TX to PREMPTABLE_TX.

The variable "preempt" contains the information of the variable "pActive". In case of pActive = FALSE (due to verify_failed) the Tx state machine sends a preemtable frame with a SMD-S even the link doesn't support this.

This is happen only if the upper layer doesn't take into account the failed verification process.

Is my interpretation correct?

SuggestedRemedy

Has to be discussed

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. #386

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **39** # 359

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **R**

Figure 99-4-Transmit Processing State Diagram

State 'P_TX_COMPLETE' is more complex to understand than necessary and forced to include an IF statement.

SuggestedRemedy

Separate into 2 states: 'P_TX_COMPLETE' and 'P_TX_FRAG_COMPLETE'.

Response *Response Status* **C**

REJECT. We discussed as a task force previously and preferred this way. Also adding a state doesn't simplify the state diagram.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **41** # 308

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

Figure 99–4—Transmit Processing State Diagram

Varialbe "pTxCpt" in the state P_TX_COMPLETE should be "pTxCpt".

SuggestedRemedy

please correct

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. pTxCplt

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **41** # 183

Law, David — HP

Comment Type **TR** *Comment Status* **A**

The counter 'txFrameCnt' is incremented in the state P_TX_COMPLETE, however no such counter is defined in subclause 99.4.7.5 'Counters', and the state INIT_TX_PROC sets the 'txFrame' counter to zero.

SuggestedRemedy

Change 'THEN txFramecnt++' to read 'THEN txFrame++'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **41** # 357

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

Figure 99-4-Transmit Processing State Diagram

Variable 'pTxCpt' should be 'pTxCplt' in state 'P_TX_COMPLETE'.

SuggestedRemedy

Add the 'l'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **42** # 309

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

Figure 99–4—Transmit Processing State Diagram

Varialbe "txFrameCnt" in the state P_TX_COMPLETE should be "txFrame".

SuggestedRemedy

please correct

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **42** # 358

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

Figure 99-4-Transmit Processing State Diagram

Variable 'txFrameCnt' should be 'txFrame' in state 'P_TX_COMPLETE'.

SuggestedRemedy

Remove the 'Cnt'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **46** # 272

Regev, Alon — Ixia

Comment Type **T** *Comment Status* **A**

When transitioning from the PREMPT_WAIT to RESUME_PREAMBLE, preambleCnt is never set to 0.

SuggestedRemedy

In the PREMPT_WAIT state, add a line with "preambleCnt <= 0"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Covered in the TRs.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **46** # 356

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

Figure 99-4-Transmit Processing State Diagram

'PREMPT_WAIT' should be 'PREEMPT_WAIT'.

SuggestedRemedy

Add the 'E'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **48** # 360

Brandt, David — Rockwell Automation

Comment Type **TR** *Comment Status* **A**

Figure 99-4-Transmit Processing State Diagram

State 'PREEMPT_WAIT' should have assignment 'preambleCnt <= 0' so that the preamble is processed correctly in state 'RESUME_PREAMBLE', where an express packet has not been previously received.

SuggestedRemedy

Add to state 'PREEMPT_WAIT' the assignment 'preambleCnt <= 0'.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. See #289

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **6** # 27

Beaudoin, Denis — Texas Instruments

Comment Type **E** *Comment Status* **R**

It would be nice to give a definition of UCT, even if it's buried in some other relevant doc.

SuggestedRemedy

Add to Abbreviations section 1.5

Response *Response Status* **C**

REJECT. It is in 1.5 of IEEE 802.3. We don't repeat abbreviations we use frome there.

Cl **99** *SC* **99.4.7.7** *P* **43** *L* **77** # 29

Beaudoin, Denis — Texas Instruments

Comment Type **ER** *Comment Status* **A**

The state transition to START_PREAMBLE has the word FALSE misspelled send_v=FALE *

SuggestedRemedy

Correct line to state 'send_v=FALSE *'

Response *Response Status* **W**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **19** # 363

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

Figure 99-5-Receive Processing State Diagram

In 'RX_PREAMBLE', 'PREMBLE' is spelled wrong.

SuggestedRemedy

Use 'PREAMBLE'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **23** # 169

Law, David — HP

Comment Type **TR** *Comment Status* **A**

I don't see when pRX_DV is set to FALSE in the 99-5 'Receive Processing State Diagram' for a verify or respond packet. Such packets will enter the pMAC_DATA_VALID state when mRxDV becomes TRUE setting pRX_DV to TRUE. They will then transition between CHECK_FOR_START and RX_PREAMBLE until either a V or R SMD which will transition them in to RCV_V or RCV_R respectively. On a bad CRC there will be a transition directly to IDLE_RX_PROC, a good CRC will transition through V_MCRC_OK or R_MCRC_OK respectively. In none of these cases is pRX_DV set back to FALSE causing the verify or respond packet to be appended to the next packet in the pMAC.

SuggestedRemedy

Add pRX_DV(FALSE) to both the RCV_V and RCV_R states. This will cause the pMAC to discard the preamble and SMD since they will be shorter than a minimum size packet.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **30** # 285

Slavick, Jeff — Avago Technologies

Comment Type **TR** *Comment Status* **R**

Figure 99-5: Exit from P_RECEIVE_DATA needs priority resolution when RX_MCRC_CK=TRUE and mRxDv=TRUE, do you go to WAIT_FOR_DV_FALSE or FRAME_COMPLETE?

SuggestedRemedy

Add appropriate priority resolution to state transitions

Response *Response Status* **W**

REJECT. mRxDv is never true when becomes RX_MCRC_CK becomes TRUE. RX_MCRC_CK is a "prescient" function (which really means there is a small FIFO that is buffering the data so it can look ahead). It goes true when the next 33 primitives will contain a correct MCRC followed by an mRxDv. Therefore, mRxDv be true and the transition WAIT_FOR_DV_FALSE will be taken.

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **30** # 174

Law, David — HP

Comment Type **T** *Comment Status* **R**

Although I don't think there is anything incorrect with the use of the prescient function RX_MCRC_CK, would it not be simpler to calculate mCRC when mRxDv transitions to FALSE, and that be used to determine the transition. This would also seem to remove the need for the prescient function, which to me in implementation terms implies some form of pipelining, and therefore latency.

SuggestedRemedy

Suggest that [1] the condition to transition from P_RECEIVE_DATA back to P_RECEIVE_DATA to be 'mRxDv = TRUE'; [2] the condition to transition from P_RECEIVE_DATA to FRAME_COMPLETE to be 'mRxDv = FALSE * RX_MCRC_CK = FALSE'; [3] the transition from P_RECEIVE_DATA to WAIT_FOR_DV_FALSE be deleted; [4] a transition be added from P_RECEIVE_DATA to WAIT FOR RESUME under the condition 'mRxDv = FALSE * RX_MCRC_CK = TRUE'; the description of the RX_MCRC_CK function be changed to read 'Function returning a Boolean value. The value is TRUE if last 32 pPLS_DATA.indications equal the computed mCRC result for the preemptable frame being received. It is false otherwise.'.

Response *Response Status* **C**

REJECT. You have to make a decision on what to do with bit n based on bits n through n + 31 plus what happens to mRxDv after bit n +31. Because based on those bits, you are going to send bit n to the MAC. Therefore there has to be pipelining.

You can't send the MCRC to the MAC.

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **40** # 278

Regev, Alon — Ixia

Comment Type **TR** *Comment Status* **A**

Now that SMD_DECODE can return V or R, that case needs to be handled by the CHECK_FOR_RESUME state.

Note that both of these cases are valid (not errors). Due to timing differences (and interferring frames), it is valid to recieve an "R" when already in preemption mode (this will be an "R" to the second or third "V" request, where the first "V" got a timeout but we still got a delayed response). And as preemption is enabled in each direction separately, we could get a "V" request at any time.

In the case of receiving an "R", as preemption is already enabled, we can just ignore the mPacket and transition back to the WAIT_FOR_DV_FALSE state.

In the case of receiving a "V", we need to process it by verifying the mPacket and if its valid setting rcv_v to TRUE. In either the valid or invalid "V" mPakcet, we then need to transition to WAIT_FOR_RESUME state.

SuggestedRemedy

change the transition from CHECK_FOR_RESUME to WAIT_FOR_DV_FALSE from "E + ERR" to "E + R + ERR"

Add a new state titled "RCV_V_BETW_FRAGS" under and to the left of "CHECK_FOR_RESUME".

Add a new state titled "V_MCRC_OK_BETW_FRAGS" under the "RCV_V_BETW_FRAGS" state.

Add a transition from CHECK_FOR_RESUME to RCV_V_BETW_FRAGS with the condition of "V"

Add a transition from RCV_V_BETW_FRAGS to WAIT_FOR_RESUME with the condition of "mRxDv=FALSE"

Add a transition from RCV_V_BETW_FRAMS to V_MCRC_OK_BETW_FRAGS with the condition of "RX_MCRC_CK=TRUE"

Add a transition from V_MCRC_OK_BETW_FRAGS to WAIT_FOR_RESUME with the condition of "mRxDv=FALSE"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. There is a simpler change which is to move the 4 states handling reception of V and R to the Express State Machine. (Bonus that machine has more room anyway).

In this state machine, add V and R to the transitions that have E.

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **41** # 182

Law, David HP

Comment Type **TR** *Comment Status* **A**

Typo in the 'Receive Processing State Diagram' transition from the CHECK_FOR_RESUME state to CHECK_FRAG_CNT state.

SuggestedRemedy

'cFameCn' should read 'cFrameCn'.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. It's cFrameCnt

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **41** # 175

Law, David HP

Comment Type **T** *Comment Status* **A**

On the basis of being conservative on what we send and liberal on what we receive, while we don't allow the sending of a verify or response frame while a preemptable frame is being preempted, I suggest we define the behaviour of the Receive Process State Diagram if a SMD-V or SMD-R is decoded in the CHECK_FOR_RESUME state. Since a SMD encoding that is error causes the frame to be discarded, suggest the same for a SMD encoding of 'V' or 'R'.

SuggestedRemedy

Add 'V' and 'R' as additional OR conditions on the transition to the state 'WAIT_FOR_DV_FALSE' so it reads 'E + V + R + ERR'. Alternative change this condition to read 'ELSE' (see referenced subclause 21.5, Table 21-1 'State diagram operators').

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. You could be in the condition where the last mPacket of a packet was dropped (e.g. SMD got corrupted to an invalid value) so the receive machine thinks the preempted packet is still in process.

Because of this and other issues, we moved reception of Verify and Respond to the Express state diagram where they can be received at any time. See #286

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **42** # 286

Slavick, Jeff Avago Technologies

Comment Type **TR** *Comment Status* **A**

Figure 99-5: Exit from CHECK_FOR_RESUME doesn't have conditions when a V or R are decoded.

SuggestedRemedy

Add appropriate path when a V or R is decoded from CHECK_FOR_RESUME state

Response *Response Status* **W**

ACCEPT. Good catch #278

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **42** # 325

Tretter, Albert Siemens

Comment Type **T** *Comment Status* **A**

Figure 99–5—Receive Processing State Diagram

Condition "E + ERR" at the state change from state CHECK_FOR_RESUME to WAIT_FOR_DV_FALSE.

Should the condition "E + ERR" not also contain the values "R" and "V". It could be happen that in error cases the receive statemachine should cope with the reception of verification frames

SuggestedRemedy

Should be discussed

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #278

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **43** # 186

Law, David HP

Comment Type **TR** *Comment Status* **A**

The reception of a SMD-S while in the CHECK_FOR_RESUME state with keepSafterD set to TRUE cause a transition to DISCARD_KEEP_S and then to REPLACE_SMD state. I however don't see the state of data_valid being changed in any of these states through calls to the PRX_DV function, and without this it appears the discarded frame and the SMD-S frame will be concatenated.

SuggestedRemedy

Add the following to the DISCARD_KEEP_S state after the call to the DISCARD function:

pRX_DV (FALSE)
A timer to provide an IPG delay
pRX_DV (TRUE)

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. One can't put an IPG delay in here because that could delay the kept frame into a following new frame. Setting keepSafterD indicates that the MAC is willing to accept a new frame following a bad frame with no delay.

DISCARD already implies setting pRX_DV(FALSE) or in an implementation dependent matter letting the MAC know that the packet is over and should be discarded. That's why ASSEMBLY_ERROR doesn't have the action either.

To make this more explict, add to the definition of DISCARD:
"and that the MAC receives pRX_DV(FALSE)"
Invokes an implementation dependent process to ensure that a pMAC detects a CRC error in a preemptable frame and that the MAC receives pRX_DV(FALSE). It is used if Receive processing detects an error in a frame it is assembiling (99.4.5).

After DISCARD, add
pRX_DV(TRUE)

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **44** # 310

Tretter, Albert Siemens

Comment Type **E** *Comment Status* **A**

Figure 99–5—Receive Processing State Diagram

"cFameCnt" at condition "C * cFameCnt=rxFrameCnt" at the state change from CHECK_FOR_RESUME to state CHECK_FRAG_CNT should be correct to "cFrameCnt"

SuggestedRemedy

please correct

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **50** # 176

Law, David HP

Comment Type **T** *Comment Status* **A**

In the state ASSEMBLY_ERROR, doesn't the pRX_DV function need to be called to set data_valid = FALSE. Without this it appears the fragments that occur up to the transition in to ASSEMBLY_ERROR state will be concatenated with the next frame that causes an exit from the CHECK_FOR_START state.

SuggestedRemedy

Add the function call pRX_DV (FALSE) after the existing function call DISCARD.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #186

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **50** # 184

Law, David HP

Comment Type **TR** *Comment Status* **A**

The counter 'nxtRxFragcnt' is incremented in the state INCREMENT_FRAG_CNT, however no such counter is defined in subclause 99.4.7.5 'Counters', and the state IDLE_RX_PROC sets the 'nxtRxFrag' counter to zero.

SuggestedRemedy

Change 'nxtRxFragCnt++' to read 'nxtRxFrag++'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **44** *L* **8** # 362

Brandt, David — Rockwell Automation

Comment Type **E** *Comment Status* **A**

99-5-Receive Processing State Diagram

In 'IDLE_RX_PROC', 'ResumeRx' case is wrong.

SuggestedRemedy

Use 'resumeRx'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **45** *L* **19** # 279

Regev, Alon — Ixia

Comment Type **TR** *Comment Status* **A**

now that SMD_DECODE can return R or V, the transition from CHECK_FOR_EXPRESS to NOT_EXPRESS needs to handle this case.

SuggestedRemedy

change the transition from CHECK_FOR_EXPRESS to NOT_EXPRESS from "S + C + ERR" to "S + C + R + V + ERR"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #278

Cl **99** *SC* **99.4.7.7** *P* **45** *L* **19** # 287

Slavick, Jeff — Avago Technologies

Comment Type **TR** *Comment Status* **A**

Figure 99-6: There is no transition when SMD_DECODE provides a V on where to transition to from the CHECK_FOR_EXPRESS state.

SuggestedRemedy

Add a transition for when a SMD-V is received out of the CHECK_FOR_EXPRESS state

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. See #278

Cl **99** *SC* **99.4.7.7** *P* **45** *L* **19** # 170

Law, David — HP

Comment Type **TR** *Comment Status* **A**

I don't see the exit from the CHECK_FOR_EXPRESS state in the Figure 99-6 'Express Filter State Diagram' in the case of a verify or respond packet. Such packets will set mRxDv to TRUE therefore causing the state diagram to enter eMAC_RECEIVE_DATA_VALID and then with a UCT to CHECK_FOR_EXPRESS. There are exits from that state for preamble, SMD-E, SMD-S, SMD-C and ERR, but none for SMD-V and SMD-R.

SuggestedRemedy

Add 'V' and 'R' as additional OR conditions on the transition to the state ' NOT_EXPRESS' so it reads 'S + C + V + R + ERR'. Alternative change this condition to read 'ELSE' (see referenced subclause 21.5, Table 21-1 'State diagram operators').

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. See #278

Cl **99** *SC* **99.4.7.7** *P* **45** *L* **19** # 326

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

Figure 99–6—Express Filter State Diagram

Condition "S + C + ERR" at the state change from state CHECK_FOR_EXPRESS to NOT_EXPRESS.

Should the condition "S + C + ERR" not also contain the values "R" and "V". It could be happen that in error cases the receive statemachine should cope with the reception of verification frames.

SuggestedRemedy

Should be discussed

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. #278

Cl **99** *SC* **99.4.7.7** *P* **46** *L* **15** # 171

Law, David HP

Comment Type **TR** *Comment Status* **A**

Setting the variable 'pEnable' to TRUE will cause the Figure 99-7 'Verify State Diagram' to stop sending verification mPackets, however it will not reset the verification process. As a result, for example, if verification with a link partner has failed, and as a result the Verify State Diagram is in the VERIFY_FAIL state, disabling and then enabling preemption through the use of the pEnable will have no effect. This doesn't seem correct, nor match the subclause 99.4.3 'Verifying preemption operation' statement that 'If preemption capability is enabled and has not been verified, MAC Merge initiates transmission of a verify mPacket.'.

SuggestedRemedy

Update the Figure 99-7 'Verify State Diagram' so that pEnable set to TRUE places the state diagram back to its initial state INIT_VERIFICATION. This can be achieved by adding pEnable as an additional OR condition to the current open arrow in to this state. This will not result in verification mPacket truncation if pEnable is set to TRUE during a verification mPacket transmission as the Verify State Diagram doesn't send packets. Instead it causes Figure 99-4 'Transmit Processing State Diagram' to send them through the 'send_v' variable, and that process will still complete regardless of the state of Verify State Diagram and the variable pEnable.

In summary on page 46, line 2, change the text to read 'begin + link_fail + pEnable'. Note I have also submitted a comment suggesting that disableVerify be added to this equation.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **46** *L* **29** # 387

Tabatabaee, Vahid Broadcom

Comment Type **E** *Comment Status* **A**

In Figure 99-7, if verification fails, then there is no way for SW to reinitiate the verify operation. Need a path back to INIT_VERIFICATION.

SuggestedRemedy

Add a condition that if preemption is disabled (pEnable = FALSE) return to INIT_VERFICATION.
In this way SW can deassert and re-assert premption_enable to restart verification process.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.7.7** *P* **46** *L* **46** # 311

Tretter, Albert Siemens

Comment Type **E** *Comment Status* **A**

"... RS delay for an preemptable frames when preemptable traffic is released ..."

I assume "an preemptable frames" should be "an preemptable frame"

SuggestedRemedy

please correct

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. "a preemptable frame"

Cl **99** *SC* **99.4.7.7** *P* **46** *L* **5** # 288

Slavick, Jeff Avago Technologies

Comment Type **TR** *Comment Status* **R**

Figure 99-7: Have 2 distinct machines here, but one machine sets varaibles that are also set/used by the other.

SuggestedRemedy

Remove the rcv_v and send_r assignemnts from the INIT_VERIFICATION
In the RESPOND_IDLE state add rcv_v <= FALSE and send_r <= FALSE
Change the exit condition from SEND_RESPOND to UCT
Remove the rcv_v <= FALSE from SEND_RESOND (will be done in RESPOND IDLE now)

Response *Response Status* **W**

REJECT. There is no problem with setting variables in one state machine that are used by another. That is how flags between state machines are done.

The changes suggested by the commenter would not work. send_r is a flag that is set true by the respond state machine to initiate sending a response and set false by the transmit machine to indicate that the response has been sent. Another verify might be received while the response is being sent and the state machine needs to stay in SEND_RESPOND until the response is completed so that the new verify produces a new response. All the intializaton for these variables can be centralized in one state and is.

Cl **99** *SC* **99.4.8** *P* **45** *L* **38** # 330

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **R**

HRT shall be no more than 1240 bit times plus 512 times addFragSize.

The "plus 512 times addFragSize" are optional, right?

The "plus 512 times addFragSize" could also be 1, 2 and 3 times 512 bit times, right

SuggestedRemedy

Clarification needed

Response *Response Status* **C**

REJECT. No clarification is needed. The receiver has the option indicating it wants addFragSize. The transmitter has to honor the requested size.

If addFragSize is >0, HRT is increased as this formula indicates.

Cl **99** *SC* **99.4.8** *P* **45** *L* **47** # 220

Ran, Adee — Intel

Comment Type **E** *Comment Status* **A**

Punctuation can be improved in this sentence to help the readers.

SuggestedRemedy

Add comma after "is active".

Change "hold response time, HRT," to "hold response time (HRT)".

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.8** *P* **45** *L* **49** # 33

Beaudoin, Denis — Texas Instruments

Comment Type **TR** *Comment Status* **A**

Since the section does not specify which MAC the pause MAC control frames are sent on.

SuggestedRemedy

Please specify which MAC the MAC control frames are sent on so that we can determine how the delay constraints are applied.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. See #57.

Cl **99** *SC* **99.4.8** *P* **46** *L* **22** # 345

Zimmerman, George — CME Consulting, Inc.

Comment Type **E** *Comment Status* **A**

Figure 99-7, state WAIT_FOR_RESPONSE has incorrect name of counter.
appears to be typo in name of verifyCnt (see 99.4.7.5, page 41 and also below in Figure 99-7)

SuggestedRemedy

Replace verfyCnt with verifyCnt

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.4.8** *P* **46** *L* **38** # 46

Dwelley, David — Linear Technology

Comment Type **E** *Comment Status* **A**

"elsewhere in the standard" (3 places) - where?

SuggestedRemedy

Provide a specific reference so the hapless reader doesn't need to search the entire book

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. If it was one place or a small number of places, we would but it is defined for each MAC speed in the section that adds the speed. See #195

Cl **99** *SC* **99.4.8** *P* **46** *L* **38** # 195

Marris, Arthur — Cadence Design Syst

Comment Type **TR** *Comment Status* **A**

"shall meet the delay specified elsewhere in this standard" is not an appropriate way to standardize something.

SuggestedRemedy

Replace "the delay specified elsewhere in this standard" with an actual value.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. It isn't one specific value. Each speed specifies it. We could say "shall meet the delay specified for a MAC Control, MAC and RS based on the MAC operating speed."

Cl **99** *SC* **99.4.8** *P* **46** *L* **4736** # 221

Ran, Adee Intel

Comment Type **E** *Comment Status* **R**

The second paragraph on this page seems to allow a longer delay for for an express frame in some cases.

In the first and third paragraphs, it isn't clear if there is anything specified - it seems like a long way of saying "all other requirements are still valid". If there is something else, it should be rephrased to clarify. Otherwise, this text is obvious and should be deleted.

Long sentences similar to each other makes it difficult to understand what is required here.

SuggestedRemedy

Clarify or delete the first and third paragraphs.

If possible, use a table or a list or some other format to help readers discriminate these cases.

Response *Response Status* **C**

REJECT. Yes, the maximum delay for express packets is different depending on whether HOLD was asserted HRT before the MA_DATA.request primitive or not.

While the sentences are long, the text is defining the impact of the MAC Merge sublayer in each of the several cases that can occur. If this is not done, the delay through the MAC Merge sublayer would be unspecified.

The first paragraph defines the maximum delay for an express frame when preemptable MAC is being held (by an MM_CTL.request(HOLD) sent by the MAC Client at least HRT before the MA_DATA.request). This paragraph specified that no additional delay be added to the delays specified elsewhere in document. Without this paragraph, there would be no bound on the delay through the MAC Merge sublayer in this case.

The third paragraph defines the maximum delay for a preemptable frame when no frames are being transmitted by the express MAC. If this were not specified, there would be no bound to this delay.

The task force attempted to find a more concise way of stating this and could not find one. There are multiple conditions that need to be included to precisely specify delay. We invite the commenter to propose better text for consideration.

Cl **99** *SC* **99.5** *P* **47** *L* **6** # 20

Anslow, Pete Ciena

Comment Type **E** *Comment Status* **A**

"clause title" should be "MAC Merge sublayer"

SuggestedRemedy

Change "clause title" to "MAC Merge sublayer"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.5.1** *P* **47** *L* **6** # 312

Tretter, Albert Siemens

Comment Type **E** *Comment Status* **A**

The supplier of a protocol implementation that is claimed to conform to Clause 99, clause title, shall complete the following protocol implementation conformance statement (PICS) proforma.

What is meant with "clause title"??

Is this a reference or a copy paste problem?

SuggestedRemedy

please correct

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.5.2.2** *P* **47** *L* **34** # 273

Regev, Alon Ixia

Comment Type **T** *Comment Status* **A**

As the release of 802.3br is unlikely to happen in 2015, I suggest we change the draft text from "802.3br-2015" to "802.3br-201x".

SuggestedRemedy

Change all instances of "802.3br-2015" to "802.3br-201x".

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.5.2.2** *P* **47** *L* **34** # 21

Anslow, Pete — Ciena

Comment Type **E** *Comment Status* **A**

"IEEE Std 802.3br-2015" should be "IEEE Std 802.3br-201x" (2 instances)

SuggestedRemedy

Change the PICS_year variable in the clause 99 file from "2015" to "201x"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.5.2.2** *P* **47** *L* **40** # 105

Healey, Adam — Avago Technologies

Comment Type **E** *Comment Status* **A**

The ruling at the bottom of the first table and the top of the second table should be changed to "Thin".

SuggestedRemedy

Per comment.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.5.2.2** *P* **47** *L* **41** # 120

Hidaka, Yasuo — Fujitsu Lab of America

Comment Type **E** *Comment Status* **R**

The external border lines are not thick.

SuggestedRemedy

Make the external border lines above and below line 41, page 47 thick.

Or, remove the blank line 41.

Response *Response Status* **C**

REJECT. The PICS template says those lines are to be Thin. See #105

Cl **99** *SC* **99.5.3** *P* **33** *L* **41** # 332

Trowbridge, Steve — Alcatel-Lucent

Comment Type **TR** *Comment Status* **A**

Clarify reason for differing preamble lengths, and do not rely on this in receive. In CSMA-CD implementations, the preamble is a "wiggle" to wake up the link, without reliance on being able to receive the whole sequence of alternating 1s and 0s prior to the SFD.

SuggestedRemedy

If the reason for shortening the preamble for a non-initial fragment is space available, say so. On receive, clarify that the SMD or SFD received and not the length of the preamble determines the type of packet or mPacket received

Response *Response Status* **W**

ACCEPT IN PRINCIPLE. MAC MERGE is only for use with Full Duplex MACs operating at 100 Mb/s or higher. It says that in the first sentence of 99.1. The reason for the difference in preamble length is that many implementations use the preamble space internally for passing meta data. On a continuation fragment they can live with one byte less in preamble. We reduced the preamble by one octet for the contiunation to make room for the fragment count octet. Implenters requested a consistent time (IPG plus preamble and MAC Merge header octets) and handling packet data. This does that.

The state machines already clarify that they look for the SMD or SFD and don't count the received Preamble octets.

No change needed.

Cl **99** *SC* **99.5.3** *P* **47** *L* **46** # 142

Law, David — HP

Comment Type **E** *Comment Status* **A**

Match subclause title the overall Clause title, 'MAC Merge sublayer'.

SuggestedRemedy

Change title to read 'PICS proforma tables for MAC Merge sublayer'.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.5.3** *P* **48** *L* **11** # 327

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

The choises for MM4 and MM5 in column "Support" contains the options "Yes" and "No". The rest of PICs have only the "Yes" entry.

Why do the rest have no "No" choise?

SuggestedRemedy

Has to be discussed

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. No change to standard. If an item is optional, valid response are Yes or No. If an item is mandatory, valid reponse is Yes.

Cl **99** *SC* **99.5.3** *P* **48** *L* **40** # 329

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

PICS proforma: DC3

Question: Is it necessary that we have a PICS proforma (DC5) indicating the case "Delay to transmit preemptable frame after sending an express frame (and not using the MM_CTL.request primitive.)?

SuggestedRemedy

should be discussed

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. It was discussed. Yes, all Shalls need a PICS proforma entry.

Cl **99** *SC* **99.5.3** *P* **48** *L* **40** # 314

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

PICS proforma: DC3

Delay to transmit express fram when preemptable traffic is not held by MM_CTL.request

=> "fame" should be changed to "frame"

SuggestedRemedy

please correct

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.5.3** *P* **48** *L* **43** # 328

Tretter, Albert — Siemens

Comment Type **T** *Comment Status* **A**

PICS proforma: DC4

"Meets the maximum cumulative MAC Control, MAC and RS delay."

Do we have already defined the maximum cumulative delay?

Are the values defined in clause "99.4.8 Delay Constraints" already fix?

SuggestedRemedy

Should be discussed

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. It was discussed. Yes, there are lots of them. Each speed specifies it for that speed.

Cl **99** *SC* **99.5.3.1** *P* **48** *L* **3** # 106

Healey, Adam — Avago Technologies

Comment Type **E** *Comment Status* **A**

Regarding the PICS proforma tables:

1. Move the table with items MMx so that it precedes the heading for 99.5.3.2.
2. The base standard left justifies the text in the cells of the PICS proforma table but text in the "Support" column of the tables is right justified. Change it to left justified.
3. The status column is blank. Designate each item as mandatory, optional, or conditionl as appropriate.

SuggestedRemedy

Per comment.

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.5.3.2** *P* **47** *L* **50** # 313

Tretter, Albert — Siemens

Comment Type **E** *Comment Status* **A**

Head line "99.5.3.2 Delay constraints"

Should this head line not be shifted between the two tables at page 48?

SuggestedRemedy

please check

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **99.5.3.2** *P* **48** *L* **40** # 246

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

"fram" should be "frame" (really it should be packet, but there is a separate comment on that).

SuggestedRemedy

change "fram" to "frame"

Response *Response Status* **C**

ACCEPT.

Cl **99** *SC* **Fig 99-4** *P* **43** *L* **48** # 289

Thaler, Pat — Broadcom

Comment Type **TR** *Comment Status* **A**

PREEMPT_WAIT should set preambleCnt <= 0 so that REUSME PREMABLE produces the correct amount of preambe.

Note that once this is done, PREEMPT_WAIT and RESUME_WAIT have the same exit conditions and the same actions except that PREEMPT_WAIT sets resumeTx <= TRUE. Since resumeTx <= TRUE in order to enter RESUME_WAIT and it is only set FALSE in IDLE_TX, setting it again in RESUME_WAIT souldn't hurt anything. Therefore, RESUME_WAIT and PREEMPT_WAIT could be combined.

SuggestedRemedy

Add premableCnt <= 0 to the PREEMPT_WAIT actions.

Consider eliminating PREEMPT_WAIT moving the transition into it into RESUME_WAIT and adding resumeTx <= TRUE to RESUME_WAIT actions.

Response *Response Status* **C**

ACCEPT. Eliminate PREEMPT_WAIT. Transition to RESUME_WAIT instead adding resumeTx <= TRUE to the actions

Cl **999** *SC* *P* **3** *L* **14** # 235

Regev, Alon — Ixia

Comment Type **E** *Comment Status* **A**

Extra space before period

SuggestedRemedy

Change "Traffic ." to "Traffic."

Response *Response Status* **C**

ACCEPT.

Cl **999** *SC* *P* **4** *L* **28** # 256

Regev, Alon Ixia

Comment Type **T** *Comment Status* **A**

"This amendment includes [complete]" is not complete.

While we don't yet know exactly which version of 802.3 (802.3-2015 most likely) and ammendments will be included, we do need to include a description of this ammendment.

SuggestedRemedy

Change
"IEEE Std 802.3xx™-201x
This amendment includes [complete]"

To
"IEEE Std 802.3br™-201x
Amendment X - This amendment specifies additions to and appropriate modifications of IEEE Std 802.3-201X to add support for interspersing express traffic with preemptable traffic. This is achieved by defining a MAC Merge sublayer which attaches an express Media Access Control (MAC) and a preemptable MAC to a single Physical Signaling Sublayer (PLS) service."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE. Change 802.3-201X to 802.3-2012

Cl **999** *SC* *P* **4** *L* **30** # 54

Grow, Robert RMG Consulting

Comment Type **ER** *Comment Status* **A**

Missing amendment description.

SuggestedRemedy

Please write description of this amendment so it can be reviewed by the ballto group.
Other projects will need to copy this description as part of their draft frontmatter.

Response *Response Status* **W**

ACCEPT.